SUICIDE PROBLEMS

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SUICIDE PROBLEMS

WITH AN INTRODUCTION

By

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PREFACE.

The articles here reprinted, aside from the Introduction, have appeared in different publications during the last thirty-five years. Most of them were contributed to the *Spectator,* a New York insurance periodical, under the title of "The Annual Suicide Record." The principal objective of the articles has been to make the facts of our suicide experience more conveniently accessible to insurance companies and the general public. Occasionally certain phases of the suicide question have been discussed, but these have been enlarged upon in an extended introduction which covers most of the essential aspects of the suicide problem as it presents itself from the American point of view. Grateful acknowledgment is made to the *Spectator* for permission to reprint the articles, and I would fail if I did not give expression of my sincere gratitude to the numerous health officials and registrars of vital statistics throughout the country, as well as those of foreign countries, who year after year have furnished in advance the data required. The service they have rendered me in this respect, however, is a larger service rendered to the general public. Acknowledgment is also made to The Prudential Insurance Company for reprinting the articles, to make the entire material available in a convenient form to the student of the suicide problem.

Frederick L. Hoffman,
Prudential Insurance Company.

Newark, New Jersey, December 1, 1927.

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INTRODUCTION.

The suicide problem has been a subject of interest and discussion time out of mind. Endless dissertations and books have been written in explanation of a phenomenon which seemingly defies analysis or explanation. The love of life and its continuity and prolongation are at least supposed to be born in every individual, but yet we witness an immense stream of self-destruction year after year all over the globe, varying only in the degree of its intensity in different countries and among different racial types. For more than thirty years the subject has engaged my attention, chiefly as a problem in practical social statistics, primarily for life insurance purposes. For a long time it seemed to me that our suicide rate was rapidly increasing, but during the past decade there has been a slackening in the rate of progression and the present rate is measurably lower than the rate common—at least to this country—some twenty or thirty years ago. But what is true of this country does not hold for many other sections of the world where conditions of life vary but little from our own. Primarily, in my judgment, this must be attributed to the more widely diffused prosperity of the United States, particularly during the last decade. Life in this country is now less trying, employment is more easily secured, the losses are more rapidly regained, while even serious delinquencies have not with us the hopeless outlook that is the case in Europe.

Yet the problem still presents a truly appalling aspect. At the present time I would conservatively estimate the annual waste of human life by self-destruction in this country at not less than 15,000. It is no doubt true that many of these lives were complete social failures and probably a hindrance rather than a help to the human struggle individually or collectively considered. But it is also true that many admirable and useful lives are self-ended for reasons hidden in a mass of confusing and conflicting evidence beyond the chance of a rational explanation. To every successful case of suicide, there are numerous attempts suggestive of a much wider scale of social discontent or social maladjustment than is indicated by the annual toll of successful self-destructions. The question of life being worth living must needs occur to most people who strive to rise from mediocrity and ignorance to a higher level of social and economic well being. That there should be many failures in the struggle is self-evident, but that such failures should end in self-destruction is of itself the most glaring indictment of our attained degree of culture and civilization. Suicide in modern times is becoming such a commonplace that even the most suggestive cases scarcely receive more than a passing thought. Suicide touches every phase and condition of life. Neither poverty nor riches, high intellectual culture or sincere religious convictions are a barrier. Suicide occurs even among savages and barbarian races where the fear of death is probably more pronounced than with races considered civilized. The very young and the very old contribute their share. The highly placed ecclesiastic, the teacher of ethics, the philanthropist and economist, the financier and the industrialist, or the captain of industry, the statesman and diplomat, the

master mariner and the physician, all add their quota to self-destruction as a sorry contribution to the cultural history of the present day.

The American Suicide Rate—1900-1925

My interest in suicide has been largely concerned with the statistical aspects of the subject. But I have also had occasion to study numerous individual cases and have collected many thousands of individual instances in the furtherance of my purpose to thoroughly understand the underlying conditions making for self-destruction. Unfortunately the evidence in most cases of suicide is a hopeless mass of conflicting information which can not be relied upon to furnish a trustworthy clue to the greatest mystery of human life. The true cause remains hidden in the innermost consciousness of the unfortunate being, weary of life and through with the struggle. It requires a wide knowledge of the human effort to meet the countless problems of maladjustment which irritate and destroy the sources of happiness which all are seeking. In a population of nearly 115,000,000, it may amount to little that 15,000 should end their own existence, but this is a population of a good-sized little town, representing vast social and economic possibilities if properly directed and subject to control. The accumulative effect of this mass of self-destruction in the course of a decade or a century represents a prodigious number of human failures, the reflex of which must extend into countless directions and prove the source of endless sorrow, suffering and discontent. There is probably nothing worse in a family history than a record of suicide, the suggestive aspect of which may plague many subsequent generations. If those who end their own existence would only reflect upon the consequences of their acts upon innocent members of the family, friends and associates, they would often be precluded from taking the fatal step which admits of no correction.

While I have reviewed the suicide statistics for many years, I will on the present occasion restate certain fundamental facts and conclusions. The table following shows the suicide rate of the United States Registration Area for the period of twenty-six years, from 1900 to 1925:

The U. S. Suicide Rate—1900-1925.

Year	Estimated population in the death registration area, 1900-1925*	Deaths and death rates from suicide per 100,000 estimated population, in the registration area—Continental U. S.	
		Number	Rate
1900	30,765,618	3,534	11.5
1901	31,370,952	3,824	12.2
1902	32,029,815	4,054	12.7
1903	32,701,083	4,510	13.8
1904	33,345,163	4,912	14.7
1905	34,052,201	5,438	16.0
1906	41,983,419	5,853	13.9
1907	43,016,990	6,745	15.7
1908	46,789,913	8,332	17.8
1909	50,870,518	8,402	16.5
1910	53,831,742	8,590	16.0
1911	59,183,071	9,622	16.3
1912	60,359,974	9,656	16.0
1913	63,200,625	9,988	15.8

* In 1900 the registration area represented 40.5% of the total United States population. In 1910 this proportion was 53.8% and in 1920 it was 82.2%.

Year	Estimated population in the death registration area, 1900-1925*	Deaths and death rates from suicide per 100,000 estimated population, in the registration area—Continental U. S.	
		Number	Rate
1914	65,813,315	10,933	16.6
1915	67,095,681	11,216	16.7
1916	71,349,162	10,162	14.2
1917	74,984,498	10,056	13.4
1918	81,333,675	9,937	12.2
1919	85,166,043	9,732	11.4
1920	87,486,713	8,959	10.2
1921	88,667,602	11,136	12.6
1922	93,241,643	11,053	11.9
1923	96,986,371	11,287	11.6
1924	99,200,298	12,061	12.2
1925	103,108,000	12,495	12.1

During the period under review the suicide rate reached a maximum point of intensity in 1908, or 17.8 per 100,000, which had gradually increased from 11.5 in 1900. After that it remained fairly high until about 1915. Subsequent to 1915 the rate declined to a minimum of 10.2 in 1920. During the last five years the rate has been approximately 12 per 100,000. The registration area represents about 85 per cent of the total population of the United States, so that making allowance for the unrecorded area, it is approximately true that we have annually about 15,000 cases of suicide in this country at the present time.

The Suicide Rate of Australia.

Without enlarging here upon the international comparison of our American rate with foreign rates at the present time, I include a brief table of suicide rates for recent years for the State of Victoria, Australia, where conditions of life correspond much to our own.

Suicides in the State of Victoria, Australia, 1908-1926.

(Rates per 100,000.)

1908–1912	10.2	1920	9.5
1913	10.3	1921	9.9
1914	9.0	1922	8.1
1915	10.5	1923	7.8
1916	8.3	1924	7.2
1917	8.8	1925	10.7
1918	7.2	1926	9.5
1919	8.9		

Thus the American rate for 1925, or 12.1 per 100,000, is but a trifle higher than the Victoria rate for the same year, shown to have been 10.7. Other international data will be subsequently dealt with.

Accuracy of Data.

Preliminary to a further discussion, it is necessary to emphasize the extreme difficulty of absolute accuracy in all suicide returns. The facts of self-murder, murder and accidents are often so hopelessly confused that whatever decision is arrived at must necessarily be of the nature of

* In 1900 the registration area represented 40.5% of the total United States population. In 1910 this proportion was 53.8% and in 1920 it was 82.2%.

a compromise, but, broadly speaking, this applies to all countries and does not very much invalidate local or international comparisons. It is further affected by occasional statutory requirements which make attempts at suicide a misdemeanor and possibly a felony. Where this is the case it is safe to say that the attempt at suicide is made with greater deliberation or the assurance that the effort will prove successful. Statistics of attempts at suicide are available for certain countries in a fragmentary form through police statistics or otherwise, but they are one and all open to grave suspicion as to completeness. Yet they are suggestive of the wider aspects of the problem as indicative of a mass of social discontent which seeks relief in self-destruction. The late Charles Mercier has discussed this question at considerable length in his treatise on "Crime and Criminals," published in 1918. Observing *inter alia* that "Although in English law suicide is a crime, it does not follow that there is anything necessarily criminal in the act, and *prima facie* it requires re-examination in this regard, since it is one of the class of offences that was originally ecclesiastical, and in the separation of ecclesiastical from civil offences was placed on the wrong side of the line."

Is Suicide a Crime?

Mercier then raises the question, "Is suicide a crime?" And ought it to be considered a crime? And furthermore, whether attempts to commit it should rank with attempts to commit crimes in the ordinary sense. He observes: "Ought he who assists or encourages or advises suicide to be punishable as an accessory to crime? These are several questions, and do not admit of a single answer; and in seeking an answer we must avoid being prejudiced by the practice of our own country. In England suicide is felony, one of the gravest crimes known to the law. Suicide was not a crime in Roman law, nor is it a crime in those countries that derive their law from Rome. In France it is no crime, and, on the contrary, is regarded as in some circumstances an honorable and praiseworthy act, as readers of Monte Cristo will remember. In Japan it is regarded in much the same light; and in India it was until recently looked upon as an imperative duty when it took the form of suttee. In the practice and estimation of nations, therefore, we find no such uniformity as will warrant us in deciding one way or the other. If we look to the authorities, we do not gain much better guidance. Bentham, indeed, enumerates suicide among offences against population; but as he includes in the same class celibacy and emigration, it is evident that his classification would not be accepted now. Becarria, though he does not positively assert that suicide is no crime, yet says that it 'seems not to admit of punishment, properly speaking, for it can not be inflicted but on the innocent, or upon an insensible dead body.' It is evident from his subsequent remarks that he considers it, if a crime at all, yet of less turpitude than emigration. FitzJames Stephen pronounces no positive opinion beyond this: 'It would, I think, be a pity if Parliament were to enact any measure tending to alter the feeling with which it [suicide] is and ought to be regarded'—that is, as a cowardly and disgraceful act. He gives no reason, however, for this opinion."

The foregoing emphasizes the complicated situation affecting suicide in different countries. In intensely religious regions, particularly under the influence of the Catholic Church, suicide is unquestionably very much depressed by religious conformity or convictions. As Mercier points out: "The suicide is condemned by the Church for depriving himself of that life that had been bestowed upon him by his Maker to be used for the glory of his Maker." But he gives it as his own opinion that "civilly, the suicide is to blame if and when by his suicide he evades obligations to the State or to individual members of the State. In such a case he does, I think, undoubtedly commit an offence, and should be held in reprobation and should suffer a punishment in proportion to the offence." But drastic laws punishing or degrading the body of the suicide, particularly in ancient times, have only in rare cases proved successful. Mercier mentions a suicide epidemic in Scotland in the 16th century, which was restricted to women and which ceased when proclamation was made that in the future the bodies of suicides would be exposed naked in the market-place. This was a repetition, I think, of a much earlier but very similar experience in Rome. Mercier concludes with a statement that "It is manifestly of importance to the State that an epidemic of suicide should not occur, or, if it does, should be put a stop to; and this affords guidance as to whether suicide should be considered a crime *per se;* for, generally, that is an offence which, if it became a universal practice, would be destructive to society. It is undoubtedly a direct injury to the State that the number of its citizens should be diminished; but only if the individuals removed from it are profitable and desirable members of the society. That it is not considered a disadvantage to the State to lose its undesirable members is shown by the former system of transporting criminals to distant colonies; and that it is not considered disadvantageous to lose even worthy and competent citizens is shown by the toleration and even the encouragement that is afforded to emigration." Hence the final observation that, "Although suicide is nominally a felony, attempt at suicide is not in practice treated even as a misdemeanor. The offender is almost always treated with commiseration, and the post-mortem punishment of the successful suicide by deprivation of religious funeral rites, by ignominious burial in a highway, and by driving a stake through the body, has been abolished by statute for nearly a century."

The subject of punishment for suicide was ably discussed in an editorial in the *New York Sun* of September 7, 1919, at which time the New York law making suicide a crime was repealed. But, as pointed out, "The Legislature wisely retained the section of the Penal Law under which a person who assists another in any way, by word or deed, in taking the latter's life is guilty of manslaughter in the first degree, and a person who in any way by word or deed encourages or assists another in an attempt at suicide is still guilty of a felony, and it is not a defence in any prosecution under either of these sections that the person taking or attempting to take his own life was not deemed capable of committing crime." Recent legislation in Italy, I understand, also repeals the statute punishing attempts at suicide which prove unsuccessful. But consider-

ing the numerous cases of suicide pacts in which one person is the dominating intelligence inducing another to commit suicide, the New York statute punishing such crimes is a salutary enactment. This, of course, has no bearing upon suicide and murder or attempts at suicide following murder, which belong to a different category of statutory crimes.

In practice it is a safe assumption that statutory enactments have not the slightest deterrent effect upon the suicide rate. Those who contemplate the act merely employ means more likely to prove successful. Countless instances are on record in which persons have time and again attempted suicide in a frenzied effort to end their existence, being not even deterred by dreadful experiences with corrosive poisons or otherwise painful injuries to the body. Where the suicidal motive has once gained a definite lodgment in the human mind, its eradication or control is one of the most difficult problems in diseases of the brain.

A Problem in Mental Disease.

In its last analysis, every suicide is a problem in mental disease. The will to live is impaired to such an extent that it is finally destroyed. The motives for suicide are countless. They may range from the most trivial to the most serious. Cases are on record in which a trifling dispute, particularly with a young person, has been followed by self-destruction. I recall a case in which a young girl ended her life because she had lost the sum of sixty cents and was afraid to face her father and be reproached for her carelessness. A distinction has been drawn between rational and irrational suicides. The former are at least considered reasonably sane, while the latter represent cases of obvious mental irresponsibility. But the problem of the present time concerns an immense group of borderland cases which can not accurately be classified as either entirely sane or entirely insane. To an increasing extent it would seem that the former lean more than ever towards self-destruction, due to the highly complex effects of our modern civilization. Strahan has defined rational suicide as one which may be said to occur in all cases in which death is deliberately chosen and embraced by a rational being, as for some reason preferable to life. But a rational being can not be precisely defined in scientific terms. It is much more accurate to observe that probably all persons are in some direction more or less irrational, while perfectly sane and well balanced in all others. Upon this theory, all persons are liable to suicide under given conditions of exceptional mental irritation, but never more so than when the pressure of existence for some reason or other becomes unbearable. To no class of persons does this apply more than to delinquents, guilty of major or even of minor crimes. Countless cases of prisoners committing suicide are on record and even of those merely accused of having committed crimes against society or the state. I have on different occasions emphasized this point by calling attention to the much higher suicide rate of prisoners in common to the general population. All who are accused of crime should, therefore, be watched much more carefully by those responsible for their keep than is generally the case. Many a prisoner facing the death pen-

alty has successfully ended his existence and cheated the gallows. In all such cases the authorities are responsible for miscarriage of justice.

Through the courtesy of Dr. Horatio M. Pollock, Director, Statistical Bureau, Department of Mental Hygiene, State of New York, I have been furnished with a return of the suicides in New York State hospitals for the insane for the period 1916-1926. During these eleven years, there were 199 suicides with the total number of patients exposed to risk one year given as 404,000. The approximate annual suicide rate would, therefore, be 49 per 100,000. It, of course, must be considered that this population represents largely adult ages. Unfortunately the details by divisional periods of life are not available to me. Of the 199 suicides, 131 were males and 68 were females. The aggregate number of male patients during the eleven years was 188,049 so that the average annual suicide rate for male patients was approximately 69 per 100,000. The aggregate number of female patients during the same period was 216,211. The average annual suicide rate for this group of patients, was, therefore, approximately 31 per 100,000.

Of course patients in institutions for the insane are on the whole guarded with exceptional care and unquestionably many suicidal attempts are successfully prevented. But I do not think it admits of a question of doubt that the suicidal propensity among the insane is decidedly higher than among the sane and that this conclusion is amply supported by the available statistics on the subject.

The Sex Factor.

A large number of definite and well defined factors enter into the suicide rate, which have been discussed by nearly all who have written upon the subject. But these factors are influenced by far-reaching changes in the cultural state of different nations, by improvements in education or economic well being, etc. The most important outstanding fact in suicide is the greater liability of men than women to end their own existence. In the United States registration states for 1920-1925, there were 21,898 deaths from suicide, of white persons, but of this number 16,505, or 75.3 per cent, were males, against 5,804, or 24.7 per cent, females. Approximately, therefore, it is safe to say that the ratio of male suicides to females is as one to three. In one of the articles reprinted, but of an earlier date, I have dealt with the sex relation in suicide in some detail. During the last twenty years the sex relation in suicide in this country appears not to have undergone very important changes.

Dr. William H. Davis, Chief, Division of Vital Statistics, Bureau of Census, has been kind enough to favor me with a statement of the suicide mortality by sex of the registration states of 1920 for the five year period 1921-1925. In this area, the male suicide rate was 18.3 per 100,000, while the female rate was 5.9. For the white population, the rate was 19.3 for males and 6.2 for females. For the colored population the male rate was 6.8 while the female rate was 2.3. These rates are based upon 54,709 suicides, of which 41,675 were males and 13,034 were females. The area included thirty-four states and the District of

Columbia and may, therefore, be accepted as conclusive for the country at large.*

Geographical Incidence of Suicide Rate.

The third factor in suicide is locality. For reasons unknown, the suicide rate varies widely, particularly in the United States, in different cities in the geographical divisions of the country. In my early reviews of suicide I frequently had occasion to emphasize the excessive rates of cities with a large German population, particularly Hoboken and St. Louis. During the last twenty years, however, this has profoundly changed, and the intensity of suicide in the United States is now most pronounced in the large cities of the Pacific Coast. For a number of years the highest rates have been recorded for San Diego, Los Angeles and Sacramento. In these cities the foreign element is of minor importance. No rational explanation has been advanced why San Diego should be so pronounced a suicide center. As was pointed out in my review for 1925, the suicide rate for San Diego was 39.6 per 100,000, against an average rate for American cities for that year of 15.6. The rate for Los Angeles in the same year was 35.7. In other words, the rates were practically double the rates normal for the country at large. In my earlier reviews I give a number of tables of the distribution by geographical divisions. Thus, for illustration, during the period 1914-1918, the rate was highest in the Pacific Coast cities, or 32.2 per 100,000, against only 14.8 for large cities of New England. For all American cities that year the rate was 18.2. A special interest attaches to the city of New York on account of its large Jewish population. In 1925 the suicide rate for Manhattan and Bronx was 20.4. For Brooklyn Borough the rate was only 10.6. For Greater New York the rate was 15.9.†

The Race Factor.

The second factor in suicide which requires consideration is race. Much to my regret I can not enlarge upon the suicide rate of the foreign racial stocks of the United States, since the subject has never been exhaustively investigated. But, broadly speaking, from such studies as I have made I feel that the racial antecedents of our foreign element show the same influence upon the suicide rate in this country as that of the corresponding races of Europe. Our negro population has for many years shown a much lower rate of suicide than the white population. For all practical purposes, our negroes live in much the same manner as the whites. They have about the same religious connections, enjoy about the same civil status, and to a large extent are reasonably well enough educated to comprehend the difference between right and wrong. If, therefore, the negro suicide rate is decidedly lower than

* The sex ratio varies of course for different countries. According to an extended report on Suicide published by the Spanish government the proportion of females in the total number of suicides for a period of years mostly ending with about 1915 was as high as 56.8% for Japan, about 23% for the United States and as low as 15.8% for New Zealand.

† See in this connection an interesting analysis of the suicide problem of San Diego by Dr. Anita M. Mühl in the Psychoanalytic Review July, 1927. She concludes that persons of a despondent temperament, emotionally unstable or morbidly inclined should not go to San Diego or continue to reside there.

the white, I feel it may safely be attributed to racial influence rather than to the American environment. In different reviews of the suicide rates for American cities I give the rates for the two races. Thus, for the period 1909-1913, in my discussion of the question in the Reference Handbook of the Medical Sciences, I give a table according to which the suicide rate of the white population for the Southern states for that period is 11.3 and for the colored, or negro, population only 3.3 For certain Southern cities the disparity in the rates, however, is less. Such individual cases of negro suicides that have come to my attention have rather indicated that the act was committed under the influence of alcoholism, jealousy or religious frenzy. As the negro becomes more and more thoroughly assimilated with the American population, an increase in the suicide rate may be expected.*

Dr. William H. Davis, Chief, Division of Vital Statistics, Bureau of Census, has been good enough to furnish me with the corrected death rate of the white and colored population of the registration states of 1920 for the five years 1921-1925. According to this analysis the white suicide rate for that period was 12.9 per 100,000, while the colored rate was only 4.6. Approximately, therefore, the negro rate was less than half the rate for the white population. These statistics are based upon 1,680 suicides of negroes in the area under observation and may be considered entirely conclusive.†

Jews and Suicide.

There are reasons for believing that the modern Jewish population in this country is much more liable to suicide than the orthodox Jewish immigrant population of thirty years ago. Exhaustive studies of this phase of the subject appear not to have been made. Morselli, in his Treatise on Suicide, observes in this connection that, "In the comparisons based on the religion of suicides, Judaism figures, in which the influence of religious bonds is complicated with that of race. This is perhaps the only religion bound up in the fate of a single people, whether on account of the exclusiveness of the Mosaic laws, or because no other race is so jealous of its own purity, its own customs, and especially of the faith of its fathers, as the Jewish. In every country where the chosen people has been spread, it has always preserved the moral Semitic character, whilst it has sometimes modified its physical characteristics. . . . This strong influence of race obliges one to proceed cautiously in attributing to the Mosaic religion the little tendency of Jews towards suicide. In the most ancient history of Palestine not more than ten suicides are mentioned, and their greatest number belongs to a less pure Jewish period, when through the Babylonish captivity and through the false prophets, they lost all trace of the ancient law." Unfortunately

* In 1924 in the United States registration states the suicide rate of the white population was 13.0, while that of the negro population was 3.6, of the Indian population 14.2, of the Chinese 85.5, of the Japanese 29.2 per 100,000. But for the last three racial elements the rates are affected by peculiarities of age distribution which are at present not ascertainable.

† In the Island of Jamaica in 1926, in a total population of 930,000, there occurred only 10 suicides or at the rate of about 1 per 100,000. The population is almost entirely black, except for about 10,000 whites. In the city of Kingston in a population of 66,000, there occurred one suicide during the year. The general death rate of Jamaica for all causes was 20.1 per 1,000.

our death certificates do not recognize the element of religion, so it is impossible to precisely ascertain the true facts without an extended and highly specialized investigation.

The question of suicide among the Jewish population is one of controversy. The only recent statistics which are available are for Prussia for the period 1908-1923. In that country the number of suicides among Jews has been as follows:

Suicide Among Jews, Prussia—1908-1923.

	Average annual number
1908-1913	132
1914-1917	140
1918-1923	154

These figures represent the average annual number of suicides during the period stated. It is explained in this connection that the number of Jews committing suicide increases continuously during the period under review. While the war reduced the number of suicides among other religious confessions, this is not the case with the Jews. The table below will give the facts for the three confessions per million of corresponding population.

Suicide Mortality, Prussia—1908-1923.

(Rate per 1,000,000.)

	Catholics	Protestants	Jews
1908-1913	118	270	322
1914-1918	86	216	349
1919-1923	105	250	416

This is one of the most interesting contributions to the study of religious confessions for recent years of which I have knowledge. It is rather extraordinary to find that the Jewish suicide figures are the highest for the three confessions and that while the rates for the Catholics and Protestants have gone down, the figures for Jews have risen considerably. It is explained that the financial industrial depression following the war affected most seriously the Jewish trading class. It is also said that the higher educational status of the Jew may be looked upon as an explanation in part of the observed excess and the continuous increase. For it is said that in proportion to the population, the Jews are much more represented at higher institutions of learning than other confessions. The opinion is advanced that the educated, in proportion to the numbers, commit suicide much more frequently than the ignorant, at least in the higher sense of intellectual culture. Finally it is said that the Jews represent largely the urban element, among whom the suicide rate is higher than among farmers and agricultural workers in rural sections. All the foregoing information has been obtained from the Zeitschrift fur Demographie und Statistik der Juden.

Suicide in Ireland.

Of special interest are the statistics of suicide in the Irish Free State, which are about the lowest on record for any country for which the data are reasonably trustworthy. During the ten years ending with 1924,

the average suicide rate of the Irish Free State was only 2.4 per 100,000, while for 1925, it was 3.0. The rate had been as low as 1.7 during 1917 and as high as 3.2 during 1924. In northern Ireland during 1925 the rate, however, was 6.0 per 100,000, suggestive of the underlying influences of religion. As it is well known, northern Ireland is predominatingly Protestant, while southern Ireland or the Irish Free State is overwhelmingly Catholic.*

The Effect of Marriage.

The influence of marriage on the suicide rate is also a phase of the question which has never been extensively considered. It would seem, however, that the single are more liable to suicide than the married, while the rate is apparently highest among the divorced. Much to my regret, I have never been able to obtain statistics which would be really conclusive upon this important aspect of an important question. Morselli has much to say upon celibacy and marriage, and he briefly refers to divorce, holding that divorce is more harmful to men than to women in regard to mental disorders. This may possibly be correlated to the fact that divorced women remarry more frequently than divorced men. He gives statistics for Saxony, according to which the probable loss from suicide among divorced men was six times that of the married and more than double that of the widowers. But he also states that in Wurtemberg it is shown to the contrary, that both widowhood and divorce were harmful to women, as suggested by the higher rate of suicide frequency than among the unmarried. In all such matters, modern statistics are urgently required to replace the fragmentary data of the past. It would indeed be very well worth while to reexamine the entire mass of data presented by Morselli in his book published in 1882, and ascertain what important changes have taken place during the long period of intervening years. Morselli's book is still the outstanding treatise on the suicide problem and still a source of much valuable and suggestive information.

The Age Factor.

The age factor in suicide is relatively of less importance, except as regards suicide among the very young and the very old. The problem of late has received extended attention on account of the alleged increase in suicide among the young, particularly college students and school children. It was assumed, though quite erroneously, that because a number of college students in rapid succession committed suicide that the evil was becoming rampant among the young of the new generation. As a matter of fact, however, this was because of an undue amount of publicity given to particularly suggestive cases. There is not the slightest evidence that suicides are more common among the young at the present time than in the past. In the aggregate the total number of persons under twenty years in this country who committed suicide would probably not exceed 300. The average age at death in suicide in

* According to the statistics of Bavaria for 1925, the suicide rate per 100,000 was 12.5 for Catholics and 23.5 for Protestants. For other confessions, including Jews, the rate was about 69.1. But the actual number of the remaining confessional groups was relatively small, the total number of suicides during the year having been only 72 against 642 Catholics which make up 70% of the population, and 496 Protestants which make up 28.6%.

the state of New York in 1924 was 46.1 years for males and 40.6 for females in New York City and 49.6 years for males and 43.9 years for females in the remainder of the state. While this is a most regrettable loss of hopeful young beings, it is, nevertheless, not a particularly suggestive indication of wrongful educational methods in the mass. In individual cases, our education unquestionably bears heavily upon the minds of the young, who become unbalanced by antiquated methods of school or college examination and who see the wreck of their hopes for the future involved in inferior marks which may or may not have been deserved. The colleges and schools have, however, a tremendous responsibility to face, and unquestionably they are often chiefly responsible for suicides which might easily have been prevented. The high-strung child or oversensitive child whose pride is humiliated by inferior marks often represents a decidedly hopeful type for the future. The large classes of modern schools and colleges, as a rule, preclude close contact with the individual scholar, who becomes submerged in the average, the standards of which he or she finds it impossible to meet. Concretely, there were 16,505 male suicides during the period 1920-1925, representing the registration states. Of that number only one was of the age period 5 to 9, while four were aged 10 to 14, and 274 aged 15 to 19. Out of 85,804 white females, only twenty were of the age period 10 to 14, while 284 were of the age period 15 to 19. I shall later have occasion to refer to some individual cases of student suicides, based, however, chiefly on press reports.

Climate and Weather Conditions.

The influence of climate, weather conditions and season on suicide has often been studied, but to small purpose. I have, however, for the present purpose brought together the suicide statistics by months for twenty-seven American cities which in 1926 had a total population of about two and a half millions. I give the statistics for the last three years, which have been consolidated to yield a better average. In the cities under consideration there occurred 10,400 suicides, giving an average rate of 16.4 per 100,000, which, of course, is considerably higher than the average rate for the registration area, which for 1925 was 12.1.

Suicide Mortality, Twenty-seven American Cities—1924-1926.
(Rate per 100,000.)

Month	Deaths	Suicide Rates	Homicide Death Rates
January	843	16.0	9.3
February	803	15.2	9.2
March	849	16.1	10.2
April	919	17.4	9.2
May	876	16.6	9.9
June	895	17.0	10.3
July	811	15.4	10.3
August	780	14.8	11.3
September	874	16.6	9.7
October	885	16.8	10.2
November	929	17.6	10.0
December	836	17.8	11.7
Total	10,400	16.4	10.1

The table indicates that the monthly rates from suicide are not of particular significance, but they have been consolidated into seasonal rates, that is, with winter beginning with December, spring with March, summer with June and autumn with September, as follows:

Suicide Mortality, Twenty-seven American Cities—1924-1926.
(Rates per 100,000.)

	Deaths	Suicide Rates	Homicide Death Rates
Spring	2,644	16.7	9.8
Summer	2,486	15.7	10.6
Autumn	2,688	17.0	10.0
Winter	2,582	16.3	10.1

The rates reduced to round figures do not vary more than a single point per 100,000. I therefore feel that, for American cities at least, the seasonal factor is of rather insignificant importance. But singling out pertinent illustrations, it appears that for Chicago, for example, the maximum number of cases of suicide, fifty-six, during the three years occurred in December, 1926, against a minimum of seventeen suicides during January, 1924. In the city of New York (Manhattan and the Bronx) the maximum number of suicides occurred during February, 1925, and September, 1925, when there were sixty-three against a minimum of only twenty-six during May, 1924. In the city of Philadelphia the maximum number of suicides, or thirty-six, occurred during April, 1924, while a minimum of only nine occurred during July, 1925. During the three years under observations in all the cities combined, the maximum number of suicides, or 337, occurred during November, 1926, while a minimum, or 257, suicides occurred during July, 1925. Hence there is no regularity in the phenomenon of suicidal instances as a maximum or minimum which would justify definite climatic or weather conclusions for this country.

But the correlation of weather phenomenon to suicide is extremely involved. Whether it be the heat, the humidity or the air pressure depends, of course, entirely upon unusual conditions which may react upon each other and produce an abnormal state of the weather which may possibly have some subtle effect upon a disordered mind. But to trace such effects in statistics would require an extended analysis, for which the facts are hardly available. One would have to know the precise hour of death and the precise weather conditions at the moment or just before the moment that death occurred. There are no such statistics as far as I am informed. It might be possible, of course, in particular instances to establish the facts with reasonable accuracy, but there again enters the factor of local variations in weather conditions, particularly as regards sensible temperatures and sensible humidity, difficult to trace in a large urban area. For there are measurable differences in weather fact between uptown and downtown New York, for illustration, and where one section may be oppressively hot and humid, another section, topographically different, may be comparatively cool and dry. At the same time, it requires to be said that Dexter, in his book on Weather Conditions, makes out a plausible theory well deserving of thoughtful consideration. For it may be reasonable to assume that very

trying weather conditions may often break down the last degree of resistance in the case of a disordered mind. To facilitate comparison with homicide death rates, I have included the information in the preceding table without, however, commenting further upon the facts disclosed. Apparently the homicide death rate is little affected by climate and season in this country when the facts for the whole country are considered collectively. How far this would be true of particular localities and geographical sections is a matter which would require extended consideration.

Historical Retrospect.

At the outset I called attention to the lower rate of suicide in this country at the present time compared with ten or fifteen years ago. It is difficult, for the United States, to deal with the question historically to much advantage except for a few localities for which the records are available for many years. In my review for 1902 of the suicide rate of the old city of New York I give a table for the boroughs of Manhattan and Bronx covering the period 1804-1903. That long record is suggestive of profound temporary alterations in the rate, indicative, however, of decline during the present quarter-century in contrast to a much earlier period. Thus, in 1805 the rate was as high as 34.1 per 100,000, reaching a second maximum of frequency, or 22.4, in 1819. The rate went down after this to as low as 5.2 per 100,000 in 1843 and 4.7 in 1846. It reached a minimum point of only 2.7 in 1864, no doubt due to the influence of the Civil War. Subsequent to this the rate gradually increased to a maximum of 24.4 in 1900. Such historical studies should be encouraged, for they are perhaps the most suggestive evidence of the progress or decline in true civilization. I have another long record for the city of Chicago, which goes back to 1867. The suicide rate of that city reached an early maximum point of 14.4 by 1872. The rate declined slightly, but another maximum point was reached by 1893, with a rate of 28.2. That was a panic year of widespread financial disaster and of unemployment. This rate was never reached again during the subsequent years, but in 1903 the rate was as high as 26.0, subsequent to which the highest rate prevailed in 1915, when it was 25.1. In 1925 the rate was only 14.4, which, however, was one point higher than the rate for 1923, which was 13.4. In my review for 1919 I give extended tables for American cities in detail showing the suicide rate for individual years from 1900 to 1919. This tabulation confirms conclusions previously stated.

The Suicide Rate of Finland—1751-1925.

An exceedingly interesting tabulation has been published for Finland, giving the suicide rates from 1751 to 1925, and by sex. This table follows, on account of its great historical value:

Suicide—Finland—1751-1925.

(Rates per 100,000.)

Year	Male	Female	Total	Year	Male	Female	Total
1751-1760	1.96	0.46	1.18	1861-1870	5.85	1.56	3.65
1761-1770	2.04	0.52	1.25	1871-1880	5.06	1.19	3.08
1771-1780	1.55	0.84	1.18	1881-1890	6.46	1.48	3.93
1781-1790	1.76	0.29	1.01	1891-1900	7.83	1.79	4.75
1791-1800	2.82	0.58	1.67	1901-1910	10.65	2.52	6.55
1801-1810	3.11	0.58	1.80	1911-1920	14.64	4.05	9.31
1811-1820	3.64	0.76	2.14	1921	18.33	4.43	11.29
1821-1830	4.17	0.84	2.45	1922	16.71	4.45	10.50
1831-1840	5.17	0.99	3.01	1923	18.60	4.41	11.41
1841-1850	6.54	1.11	3.75	1924	22.88	4.92	13.79
1851-1860	7.32	1.29	4.23	1925	.....	.....	15.06

This reveals an extraordinary increase in the suicidal intensity of the people of Finland during the last forty or fifty years compared with earlier periods. The rate started at 1.18 per 100,000 and reached its first maximum of 4.23 during the years 1851-1860. A second maximum was reached during 1910-1920, the rate being 9.31, while during the three subsequent years the rates have been 11.29, 10.50 and 11.41, respectively. Other tables for Scandinavian countries reveal a like tendency upwards, so that the phenomena is not an isolated one.

The Suicide Rate of Sweden—1781-1926.

Thus, for illustration, I am able to add the corresponding table of suicides per 100,000 of population in the Kingdom of Sweden for the period 1781-1926:

Suicide—Sweden—1781-1926.

(Rates per 100,000.)

Year	Male	Female	Total	Year	Male	Female	Total
1781-1790	3.42	1.12	2.22	1891-1900	21.24	4.84	12.81
1791-1800	3.85	1.23	2.48	1901-1910	25.36	5.38	15.41
1801-1810	5.02	1.65	3.26	1911-1915	28.12	6.34	16.99
1811-1820	6.86	1.82	4.23	1916-1920	19.45	5.50	12.34
1821-1830	9.83	2.36	5.95	1921	24.76	6.26	15.35
1831-1840	10.37	2.45	6.27	1922	23.48	5.67	14.42
1841-1850	10.94	2.66	6.67	1923	23.39	5.31	14.19
1851-1860	10.28	2.69	6.37	1924	.....	.....	13.82
1861-1870	13.04	3.30	8.04	1925	.....	.....	12.92
1871-1880	18.21	3.88	10.34	1926	.....	.....	13.75
1881-1890	13.94	3.72	8.68				

The Suicide Rate of Leningrad and Moscow.

In view of the great interest in the suicide rate of Russia previous and subsequent to the Russian Revolution, I include a table showing the suicide rate of Leningrad for 1911-1926:

Mortality from Suicide, Leningrad, 1911-1926.

(Rate per 100,000.)

1911–13	30.1	1918	15.4	1923	32.6
1914	21.1	1919	23.7	1924	32.1
1915	10.7	1920	24.7	1925	30.7
1916	11.0	1921	27.8	1926	31.5
1917	10.5	1922	29.9		

It will be observed that the maximum rate during recent years was 32.6 per 100,000 of population in 1923, against an average rate of 30.1 previous to the outbreak of the World War. Thus, the worst effects of the Revolution did not raise the rate measurably above the average for the pre-revolution and the pre-war period.

Slightly different suicide rates for Leningrad amplified, however, by rates for Moscow for the five years 1921-1925 have been furnished me by Dr. Roesle of the German Federal Board of Health. The deaths and rates have been as follows:

Suicide Record, 1921-1925—Rate per 100,000

	Leningrad		Moscow	
Year	Number	Rate	Number	Rate
1921	231	27.8	94	7.9
1922	287	30.0	235	11.7
1923	356	32.8	313	26.4
1924	392	33.0	310	17.4
1925	423	31.8	424	22.8

No explanation can be given why the suicide rate of Leningrad should be so much higher than the rate for Moscow, but there certainly has been a significant increase in the rate for Moscow since 1921. The rates may be compared with the average rate for American cities for 1924 which according to the Census was 14.7 against 19.2 in 1915.

The Suicide Rate of England and Wales—1876-1926

There is also included for the present purpose a table for England and Wales for 1915-1926 per 100,000 of population, with distinctions of sex:

Suicide Rate of England and Wales—1915-1926

(Rate per 100,000.)

Year	Male	Female	Total	Year	Male	Female	Total
1915	11.3	4.8	7.8	1921	15.3	5.0	9.9
1916	11.5	4.1	7.3	1922	15.6	5.4	10.0
1917	9.7	3.8	6.4	1923	15.7	5.3	10.3
1918	11.1	4.7	7.5	1924	14.2	5.4	9.6
1919	13.6	5.1	8.8	1925	15.3	6.1	10.5
1920	13.4	5.1	9.0	1926	16.6	6.6	11.4

Suicide Rates England and Wales, 1876-1926.

(Rate per 100,000.)

1876 7.3	1886 8.2	1896 8.6	1906 10.1	1916 7.3
1877 6.9	1887 8.0	1897 9.0	1907 10.2	1917 6.4
1878 7.0	1888 8.2	1898 9.1	1908 10.7	1918 7.5
1879 8.0	1889 7.6	1899 8.9	1909 10.1	1919 8.8
1880 7.7	1890 7.7	1900 9.0	1910 10.0	1920 9.0
1881 7.5	1891 8.5	1901 9.6	1911 9.9	1921 9.9
1882 7.5	1892 8.8	1902 9.9	1912 9.9	1922 10.0
1883 7.4	1893 8.7	1903 10.5	1913 9.6	1923 10.3
1884 7.6	1894 9.1	1904 9.9	1914 10.1	1924 9.6
1885 7.4	1895 9.2	1905 10.8	1915 7.8	1925 10.5
				1926 11.4

The Suicide Rate of Greater New York—1900-1926.

For the following table I am indebted to Dr. Guilfoy of the City Department of Health:

Suicide Rates Greater New York, 1900-1926.

(Rate per 100,000.)

1900	22.1	1909	20.1	1918	13.2
1901	20.3	1910	17.2	1919	12.6
1902	21.4	1911	16.2	1920	11.8
1903	21.8	1912	16.2	1921	14.4
1904	22.6	1913	16.7	1922	13.5
1905	17.1	1914	18.2	1923	13.9
1906	17.6	1915	18.3	1924	13.8
1907	17.1	1916	15.7	1925	15.9
1908	23.2	1917	14.4	1926	15.3

The Suicide Rate of Chicago—1867-1927.

In addition to the foregoing historical statistics I include the following table for the city of Chicago for the period 1867-1927. It emphasizes clearly the rise in the suicide rate to a maximum of 28.2 per 100,000 in 1893, which was the panic year, and the great decline of the rate during the last ten years.

Mortality from Suicide, Chicago—1867-1927.

(Rate per 100,000.)

Year	Number	Rate	Year	Number	Rate	Year	Number	Rate
1867	20	8.9	1887	112	14.7	1907	407	19.9
1868	32	12.7	1888	152	18.9	1908	494	23.5
1869	38	13.6	1889	182	19.5	1909	454	21.1
1870	44	14.4	1890	206	18.7	1910	458	20.9
1871	30	9.0	1891	246	21.4	1911	479	21.3
1872	39	10.6	1892	244	20.3	1912	546	23.7
1873	55	14.5	1893	353	28.2	1913	495	21.1
1874	53	13.4	1894	294	22.5	1914	567	23.6
1875	51	12.7	1895	350	25.6	1915	616	25.1
1876	41	10.1	1896	331	23.2	1916	533	21.3
1877	55	12.8	1897	384	25.8	1917	474	18.4
1878	52	11.9	1898	347	22.3	1918	444	16.9
1879	56	11.4	1899	377	23.2	1919	415	15.5
1880	63	12.5	1900	356	21.0	1920	365	13.4
1881	77	14.3	1901	399	22.8	1921	459	16.5
1882	88	15.7	1902	439	24.4	1922	398	14.0
1883	82	14.1	1903	482	26.0	1923	389	13.4
1884	93	14.8	1904	423	22.3	1924	443	15.1
1885	98	14.7	1905	430	22.1	1925	430	14.4
1886	119	16.9	1906	400	20.0	1926	493	16.2
						1927	491	15.8

Suicide Rate of Philadelphia—1907-1927

Through the courtesy of the Health Department of Philadelphia I have been furnished with a table of the suicide rates for that city for the last twenty years as shown as follows:

Mortality from Suicide in Philadelphia, 1907-1927.

(Rate per 100,000.)

1907.....14.8	1912.....16.9	1917.....15.4	1922.....15.0
1908.....17.6	1913.....16.0	1918.....12.7	1923.....14.4
1909.....16.0	1914.....16.5	1919.....11.6	1924.....15.2
1910.....19.2	1915.....16.5	1920.....10.4	1925.....12.5
1911.....17.6	1916.....15.1	1921.....13.8	1926.....15.0
			1927.....14.1

The Effect of Occupation.

Much at different times has been made of the effect of occupations or professional pursuits on the liability to self-murder. Unquestionably some occupations have persistently higher rates than others. Of no occupation is this more true than that which has to do with the sale of alcoholic beverages. The most trustworthy statistics on the subject are those of England and Wales, the latest of which are for the three years 1910-1912.

The precise effect of occupation on the suicide rate can not be measured with more than approximate accuracy since the statistics on the subject cover industrial groups rather than particular occupations. Nor are such statistics in usable form available for the United States and reliance must be placed upon data for England and Wales, of which the latest are for the three years ending with 1912. From these statistics I have calculated the suicide rates of specific occupational groups for the age period twenty-five and over, so as to eliminate the disturbing fact of the younger age groups at which suicides are comparatively rare. The standard suicide rate for all occupied and retired males by this method is found to be 2.83 per 10,000. With this as a basis, it is shown that one of the highest rates experienced was for innkeepers and allied employments in the liquor trade, for which the rate was 6.53. This was followed, curiously enough, by chemists and druggists, who show a rate of 5.74. Just as in the first occupation, alcoholism, is unquestionably a traceable predisposing cause, so in the second instance the convenient facilities for poisoning are obviously suggestive as a contributary fact. No explanation, however, can be given why lawyers should rank third with a rate of 5.0 and physicians follow fourth with a rate of 4.66. In both of these occupations, however, the more highly developed mentality and heavier occupational strain may possibly be predisposing to mental breakdown. Physicians also have ready access to poisons and are familiar with their effects. There is, furthermore, the risk of drug addiction. The fifth highest rate in my analysis is reached by insurance agents, with a rate of 3.97. Here the explanation is more simple in that insurance agents frequently represent previous failures in other fields of employment. They do not realize that success in insurance lies only in the direction of extraordinary energy, exceptional skill and infinite patience. The sixth highest figure is that of shopkeepers or 3.35. This is a group which includes many previous failures or ill adjusted personalities who seek in the retail trade a degree of success not as easily secured as may at first seem the case. As pointed out in the observations on business failures, the suicide rate is highest in the years in which business failures are most common. Next in the

order of importance comes unskilled labor, with a rate of 3.32. But this is rather a vaguely defined group which naturally includes many who have fallen short of success in the higher and more skilled branches of industry. Grocers come next, with a rate of 3.26. This also is a group of employments which includes many who have previously been unsuccessful in an economic sense in other fields of effort. Tailors come next, with a rate of 3.25, and shoemakers with a rate of 3.23. Seamen have the same rate as shoemakers. The chances of drowning are so obviously ready at hand that the temptation in many cases must be irresistible. Among seamen, especially stokers, suicides are occasionally induced by excessive heat experienced particularly in the tropics. After seamen come commercial travelers, with a rate of 3.22, and persons employed in the cotton industry, with a rate of 3.16. Next comes bakers, with a rate of 3.13; painters, 3.09, and barbers and hair dressers, 3.01. All of these rates are still above the average of 2.83 for occupied and retired males.

Below the average first comes upper-class workers with a rate of 2.81, followed by stone-masons, 2.68; commercial clerks, 2.63; carpenters, 2.53, and skilled workers, 2.49. Next come bricklayers, 2.47; dock and wharf laborers, 2.24; plumbers, 2.23, and teachers, 2.09. Agricultural or farm workers have a rate of only 2.03; engineers, 2.0; iron and steel workers, 1.75, and printers, 1.69. The low rate of suicide among printers has been confirmed by my own investigations into the printing trades of the United States. Thus, for illustration, in the 1925 experience of the Typographical Union, out of 877 deaths from all causes, only one was from suicide. Using the data for 1919-1923, out of 3,447 deaths from all causes, only nine or 0.3% were from suicide.

The last four occupations with the lowest suicide rates in the English experience are coal-miners, 1.57; railway guards, 1.36; clergymen, 1.30, and railway engineers, 0.56. Here the most significant and really startling fact is revealed. A group of men most likely to show the influence of a firm religious belief as a safeguard against self-murder experienced the third lowest suicide rate, while the occupations in which evil habits are likely to be most common show the highest!

While the foregoing observations are limited and rather in the nature of a broad generalization, they are nevertheless suggestive of the effects of evil habits on the one hand in raising the suicide rate and exemplary habits and a firm faith in religion on the other in reducing suicide to a minimum.

Suicide and Disease.

No phase of the suicide problem demands more thoughtful consideration than that of physical disease to the propensity to self-destruction. In my own collection of suicide cases are countless illustrations of suicides in which the immediate causative factor is alleged to be some incurable or exceptionally painful disease or bodily deformity. Persons suffering from cancer, for illustration, are frequently mentioned and are apparently especially liable to end what has become practically an intolerable existence. Patients in the hospitals for the insane or patients under care for some mental affection not infrequently elude the vigilance

of the nurse or the physician and end their lives by jumping from windows or destroying themselves otherwise. Many such cases are obviously due to gross carelessness, or possibly to variance from persistent vigilance to prevent what was an implied foregone conclusion. Patients in insane asylums often commit suicide, though not as often as is the case with persons in prisons. Persons going blind in old age commit suicide often on the ground of being a burden to others, and the same is true of helpless paralytics. In all such cases the responsibility for safekeeping rests upon others, who often fail in the adequate discharge of a self-evident duty. Young persons often commit suicide because of venereal infections, although the facts may not come out at the inquest. In many such cases, in fact, there is the utmost reluctance, for family reasons, to reveal the true state of facts concerning a suicide. Modern medicine has made extraordinary progress in the treatment of mental affections, and there is no longer the hopeless outlook common to an earlier period. A thoughtful and thoroughly competent physician can often save a life by presenting a hopeful outlook for the future. To no phase of the problem does this apply more than to sexual aberrations. Harsh methods of condemnation have gradually yielded to a more compassionate attitude towards a degree of intense mental suffering aggravated by physical illness. A vast amount of good can be done by those who have patience, sympathy and a thorough understanding of the mental condition, as well as the social problems, of the patient concerned.

Suicides and Business Failures.

During periods of financial and industrial distress the suicide rate invariably shows a tendency to increase. This was never more pronounced than during the panic of 1893-94, when I had occasion personally to consider many cases of self-destruction following business failures and unemployment. In one of the reviews I give tables showing the correlation of business failures to the suicide rate for a period of years. This information has recently been brought down to date by Bradstreet's and is given below.

Business Failures and Suicides, 1900-1926.

Year	Failures	% Failing*	Suicides †	Rate per 100,000	Year	Failures	% Failing*	Suicides †	Rate per 100,000
1900	9,912	.85	2,500	15.4	1914	16,769	.95	5,106	20.9
1901	10,648	.80	2,703	15.6	1915	19,035	1.07	5,209	20.8
1902	9,973	.80	2,988	16.7	1916	16,496	.92	4,592	18.0
1903	9,775	.76	3,335	18.0	1917	13,029	.71	4,358	16.7
1904	10,417	.79	3,560	18.7	1918	9,331	.51	3,870	14.6
1905	9,967	.73	3,560	18.2	1919	5,515	.29	3,875	14.3
1906	9,385	.66	3,394	16.8	1920	8,463	.43	3,399	12.3
1907	10,265	.70	3,886	18.8	1921	20,014	.97	4,323	15.7
1908	14,044	.94	4,564	21.5	1922	22,415	1.08	3,772	15.2
1909	11,845	.76	4,447	20.4	1923	19,159	.89	3,827	15.2
1910	11,573	.72	4,377	19.6	1924	19,712	.89	4,305	15.3
1911	12,646	.77	4,674	20.4	1925	18,859	.84	4,282	15.6
1912	13,812	.82	4,554	19.4	1926	20,032	.88	4,796	16.3
1913	14,551	.84	4,710	19.7					

* Per cent of total business concerns.
† In large cities.

This emphasizes the great importance of watching those who are affected by economic conditions, often bordering on financial ruin and a complete destruction of many years of patient toil. Quite recently wide publicity was given to the loss of an immense fortune in a few years, which reduced a very wealthy, internationally known man from affluence to practical poverty. He, however, died a natural death. Every one is now and then confronted by the question as to how a person affected with economic reverses can be rehabilitated. It is the duty of every one in all such cases to leave nothing undone to save what may possibly be a very useful, if not indispensable, human life.

Suicide and Life Insurance.

The relation of life insurance to suicide has often been discussed, particularly in a treatise on Insurance and Crime published a number of years ago. There is no doubt, in a measurable number of cases, that persons contemplating suicide provide for their dependent survivors or face the future with complacency because adequate insurance provision has been made in the past. Suicide forms a normal element in the general mortality rate assumed for life insurance purposes. The companies guard against adverse selection by a period of one or two years during which the claim would be disallowed and only the premiums paid returned. Statutory non-forfeitable requirements make a longer period impossible. A statute was passed in Missouri making suicide no defense in an action at law, and this statute has been sustained by the courts, although obviously contrary to public policy. Life insurance companies give no encouragement to suicide as long as conservative practices are adhered to and a thorough inquiry into the applicant's economical status made possible by the policy issue. The business is of such immense benefit to the country at large that the suicide hazard must be assumed as a matter of course.

Is Life Worth Living?

It is a very serious question whether modern education does not tend to foster the suicidal tendency by developing an irrational mental attitude towards the multiplicity of problems which demand solution. Modern education fails essentially in not developing a grasp of the principles of life and its duties. Cases are not infrequent in which philosophy and psychology studies directly lead to suicide, made evident by books or papers read and marked by the suicide during his lifetime. It goes without saying that the amount of questionable reading matter at the present time is enormous. The outlook for a wholesome, rational and useful life is warped by suggestions for success which admit of no fulfilment. There is also much mysticism and fadism, all leading in this direction. Instead of aiding the cause of a rational understanding, modern educational methods tend largely toward confusion and disillusion. In 1879 the late W. H. Mallock wrote a worthwhile book, "Is Life Worth Living?" He calls the attention of the readers to a quotation to the effect that "Man walketh in a vain shadow, and disquieteth himself in vain." This is precisely the confusion resulting from modern education. What mankind needs is clearness and understanding. What is most needed of all is to grasp clearly the inherent limitations of life, particularly in

material directions. The overemphasis upon wealth and luxury breeds discontent in countless directions. Mallock writes with a catholicity of spirit, in marked contrast to more modern and flippant writers who see life as a silly adventure or a reckless experiment. That the question "Is life worth living?" should ever be raised is but evidence of the mental confusion of those who ask it. For the evidence that life is worth living, even under the most adverse conditions or the most distressing circumstances, is obvious on every hand. It has properly been said that "Everything endures its time," and even sorrow, suffering and distress must sooner or later come to an end. It is the duty of modern education to foster rational conceptions of life and living and discourage every thought to look upon life as hopeless or not worth while because it fails in a material or luxurious sense. There is entirely too much reckless and as a rule worthless speculation upon aims and purposes impossible of fulfilment. While the economic limitations of life admit of a fair measure of equalization, the intellectual and spiritual possibilities of life are unlimited. The more the latter are emphasized in modern education the better. Man is more than a mere machine. Suppressed emotions are largely responsible for the enormous amount of unhappiness, for which modern educational methods are largely accountable. In its last analysis, many a life can be saved by developing a wholesome sense of humor. Young people, particularly, are apt to take themselves too seriously and consider life a failure at a time when life is only just commencing. The responsibility which rests upon the Church, the school and the state in this respect is as tremendous as it is inherent in the relation of the parent to the child.

The Effect of Suggestion.

The effect of suggestion in suicide is one of its most clearly established aspects indicative of the urgency of more restraint in publicity efforts to visualize suicidal occurrences. There is not the slightest doubt that many unstable minds are carried over the borderland of mental irresponsibility into the realm of actuality under the momentary impression of a definite suggestion as to methods and means by which life can be ended. Suggestion is strongly influenced by propinquity of means. To no place in the United States does this apply more than to Niagara Falls. No qualified investigation has ever been made to establish the number of persons who annually attempt and succeed or attempt and fail in ending their lives by jumping into the water at or near the Falls. The health authorities of Niagara Falls seem to take no cognizance of the facts in their annual reports unless the bodies recovered are proved to be residents of the locality. I am privately informed that there is not a week throughout the year during which some attempt or other is not made at suicide, which receives scant notice in the local papers. It would be highly desirable that the whole subject should be thoroughly investigated and that, if necessary, guards should be posted at proper places to prevent many unfortunate occurrences.*

*In Vienna a few days ago the one thousandth suicide occurred at the bridge across the Danube which has been a notorious resort for persons contemplating suicide for many years. Nothing effective seems to have been attempted to put an end to what is certainly a grave scandal. About the same conclusion applies to the large number of suicides which continue to occur at Niagara Falls.

Methods in Suicide.

This brings me to the larger question of methods in suicide occasionally referred to in my annual review. Suicidal methods undergo changes due partly as the result of efforts at control. Particularly does this apply to the unrestricted sale of poison. The evidence available would seem to indicate that the proportion of suicides due to poison is now less than it was twenty-five years ago. Gas poisoning, however, has unquestionably increased and is now quite common. Suicide by firearms constitutes the major portion of the cases of self-murder. For both sexes combined, for illustration, in 1923, out of 11,287 deaths from suicide in the registration area, 3,900 were by firearms, 2,058 by hanging or strangulation, 1,779 by poison except gas, 1,535 by poisonous gas, 754 by cutting or piercing instruments, 701 by drowning, 346 by jumping from high places, 115 by crushing, and 99 by other means. This analysis will serve the present purpose of reemphasizing what I have had occasion to point out in my discussion of the homicide problem, that the outstanding fact of our deplorable situation of murder and self-murder is the practically unrestrained sale of firearms on the part of the general population. Recent legislation by Congress and important legislation in the state of New York is likely to bring about an improvement which is much to be desired. No one should permit loaded firearms to lie about or to be in the possession of those who can not be trusted. The right to possess firearms should be granted only to those who are authorized by the proper authorities for legitimate purposes. It certainly goes without saying that of the nearly 4,000 deaths from suicide by firearms, a large proportion would not have occurred if such death-dealing instrumentalities had not been in the possession or accessible to those on the borderland of suicidal insanity.*

Within recent years suicides by jumping from high places have increased. The temptation to jump from tall buildings is a very serious one in many instances in which the mind is more or less disordered. Within a year or two a case occurred of a person jumping from the Washington Monument, which a few days later was followed by another. No such places should be left unguarded. It would be interesting to know how many suicides have occurred at the Washington Monument in years past. A person contemplating suicide seems to be entirely oblivious or indifferent to the risk to persons below. Cases are on record in which persons have been struck by the bodies of suicides with fatal results. The responsibility for many such occurrences rests upon the owners of tall buildings, monuments, etc., who are at present indifferent to the risk involved. The foregoing observations are best emphasized by some pertinent illustrations. I have collected thousands of suicide cases for many years, but find it utterly impossible to harmonize the evidence for the purpose of a brief generalization. The subject is entirely too complex and the evidence in most cases is too confusing to justify definite conclusions. But only the individual cases bring home to us the wide extent of a frightful evil which to combat will require the organized resources of the community. In its last

* Imitation as a factor in suicide is discussed in an editorial in the London Lancet of January 1st, 1927.

analysis every suicide stands alone and in need of a friend. He needs advice which is not forthcoming, instead of ridicule, apathy or indifference. He needs sympathy and often substantial financial help. Countless lives could be saved if the ethics of Christianity were actually operative in everyday life.

According to the Annual Report on the mortality of the United States registration area in 1924 the number of deaths from suicide by method has been as follows:

	Suicides	Rate per 100,000
By solid or liquid poison	768	0.8
By corrosive substances	1232	1.2
By poisonous gas	1641	1.7
By hanging or strangulation	2117	2.1
By drown ng	668	0.7
By firearms	4280	4.3
By cutting or piercing instruments	797	0.8
By jumping from high places	304	0.3
By crushing	125	0.1
By other means or methods	129	0.1
By all methods	12061	12.1

The distribution of suicide by method in Saxony in 1924 was as follows:

	No.	%
Hanging	672	40.2
Drowning	272	13.9
Shooting	204	12.2
Poison	418	25.0
Cutting	21	1.3
Jumping from high places	35	2.1
Run over by trains or cars	59	3.5
Other methods or means	29	1.7
	1,670	100.0

This total of 1,670 is equivalent to a rate of 34.1 per 100,000 against a rate of 12.1 for the United States registration area.

Illustrative Cases—Shooting.

The first case to which I will call attention is that of a banker at Fort Kent, Maine, who shot himself through the heart while in his office. It is said that the authorities were confident that no trouble at the bank caused the president's act, as the institution had just closed one of the most prosperous years since its foundation, twenty-five years ago. The cause of suicide was attributed to "ill health," which is a convenient excuse for complete ignorance of underlying motives and purposes.

Another case is that of a farmhand employed at the Emerson Hospital at Concord, who died by shooting himself with a shotgun he had taken from the Concord hospital. When he was facing arrest he shot himself.

The third is an Annapolis graduate, who while telephoning from his home to his estranged wife, pulled the trigger of a shotgun, inflicting a wound near the heart causing almost instant death. This man had telephoned his attorney of his intention to commit suicide but the latter arrived too late. It is stated in the press report that he had told some of his friends he intended to commit suicide in a Boston hotel and had purchased a gun for that purpose, but they did not take his threat seriously. This is often the case. Every threat of suicide should be taken seriously, for it is practically never uttered in a jest.

From New York comes the report of a boy, sixteen years of age, the son of a noted child specialist and psychiatrist, who killed himself after making the statement that he saw nothing worth while in this world.

The boy kept much to himself and must have given indication of a dangerous temperament requiring careful watching. Yet the father, a noted authority on mental diseases, failed to discover the signs of impending disaster.

At Wisconsin University, a young student, twenty years old, dwelt upon thoughts of the hereafter so long he decided life was not worth living and shot himself. It is said that he intimated the suicide to another college student, but there is no evidence of a compact between the two.

From Hempstead, N. Y., comes a report of a high school boy who killed himself by using a small automatic pistol, similar to the one with which he enacted a star role in a school play two nights before. In a note left behind, the boy said that he chose to kill himself to "lighten the family expenses," borne chiefly by his mother. He is reported to have been an outstanding student and had won the Columbia University oratorical prize in 1925 in a contest.

During the current year the president of the Bowery Savings Bank, one of the foremost financial institutions of the country, committed suicide by shooting himself, but it is stated that there was nothing whatever in the condition of the bank or the president's relations to the bank that could in any way account for the deed. In a press report it is stated that the banker evidently had no intention of taking his life until a few minutes before he shot himself, for he left no message of any kind explaining the act. Subsequently it is intimated that it was a nervous breakdown, which is another vague explanation which means nothing.

In Chicago a wealthy society man, nationally prominent in Republican politics, ended his life by shooting. In a note to his wife he remarks, "Never blame yourself. This fate was on me—the inevitable conclusion of a twisted life. Here I write and plan and the revolver has been ready for weeks, after our joyful morning. I die because I can not live." All of which may be looked upon as a disordered mind in need of careful supervision.

At about the same time a director in one of the foremost hat manufacturing companies of the country shot himself in the Lotos Club because, he stated, several trivial obstructions had blocked a large business deal planned to recoup his dwindling fortunes. He was eighty-one years of age and at one time was worth a substantial fortune. He had been divorced from his wife about twelve years previously.

From Lynn, Massachusetts, comes the report of a medical student who had read much on suicide and who ended his life by shooting. According to the newspaper report, "The young man's family told newspaper men that he had of late taken much interest in the stories of student suicides which have been appearing in the papers and often said that he was contemplating the same act. He had frequently talked of death and once told his mother that the Chinese custom was to order a coffin two days before such an act. On a table in the bedroom was a magazine of recent date, in which was an article on student suicides, and he had spoken of that several times."

In the Bronx, while her husband, her mother-in-law and a woman friend were eating dinner in her home, a woman, thirty-three years of age, suddenly left the room, returned a moment later with a new pistol,

fired a bullet into her brain and fell dead before their eyes. It was said she had seemed normal up to the time but that the probable motive was ill health, she having suffered from some intestinal trouble ill defined. She had been married nineteen years but had no children.

After diagnosing his own illness and deciding that he could not recover, a prominent Chicago doctor and medical authority killed himself at his home. He had been suffering from a respiratory infection. He apparently did not care to make a fight for recovery, although informed that his outlook was not hopeless.

Angered when his mother refused to let him stay home over the Fourth of July, a fourteen-year-old student of the Newton High School killed himself by shooting. His mother intended to take him on a visit to Portland, Maine.

In New York city a few months ago a superintendent of a twenty-story building jumped from the upper story into the street, narrowly missing several persons in a crowd passing the corner of Broadway and 58th street. An elevator operator in the building said the superintendent seemed to be in good spirits when he entered the building to go to his office on the fourteenth floor. He had told a porter to go to the roof and remove some glass he had seen there. Later he went to the roof, apparently to see if his instructions had been carried out. A notebook found in his desk made no mention of suicidal intent.

From Hancock, Maine, comes the report of a well known professor of Yale University, recognized as one of the country's most eminent chemists, who killed himself by shooting. He was highly thought of, having discovered a new radioactive element deemed of considerable importance in modern chemistry and radiology. He was fifty-seven years of age but never married. He was a member of the International Radium Standards Commission and the National Academy of Sciences. Nothing was left behind to explain the act.

Typical is the case of a Waltham, Massachusetts, merchant who a few minutes after he had read in the newspaper that the Supreme Court had decided against him and that he would have to begin serving a sentence of from three to five years in state prison, killed himself with a revolver. He had been convicted of receiving stolen goods. There is no class of people more liable to suicide than those accused of crime or facing sentence. The authorities are frequently grossly negligent in not properly taking this fact into account, for suicides among prisoners and among persons in detention while under sentence are totally disproportionate to the normal suicide rate in the general population.

Last year the founder of the Worcester *Telegram* shot himself in a broker's office. He was seventy-six years of age. That the act was premeditated is proved, according to the newspaper reports, by the fact that he bought a .32-caliber revolver and a box of cartridges a half-hour previously. He entered the brokerage office, where he had been a privileged customer for years, and evidently loaded the revolver there, for the remainder of the box of cartridges was found on the floor. Had there been proper safeguards against the sale of dangerous weapons this suicide would probably not have occurred.

A pathetic suicide is that of the assistant superintendent of a cemetery who shot himself soon after the burial of his mother. Bowed with grief

at the thought of Christmas coming and finding himself alone in the little home, he ended his life.

Another pathetic suicide was that of a tennis champion, who had been successful seven times, who faced the possibility of becoming a cripple. He had had a notable career in sports and war. He was fifty-four years of age. He suffered from rheumatism, developing into partial paralysis of his legs, which had cut short his career some years previous. He at one time ranked as one of the foremost tennis stars of the country.

Similar to the case just referred to, a man seventy-two years of age shot himself beside the grave of his wife just before Christmas. There is hardly a more dangerous time of the year than the Christmas season, which brings joy to so many but desolation and sorrow to thousands who live alone or who mourn the loss of those who have gone before. It brings home the duty of bringing cheer to such persons and leaving them not alone with their grief.

From New Orleans comes a report of the chairman of the board of directors of the Canal Bank and Trust Company, who committed suicide in a local undertaking establishment after choosing a casket. He had told the undertaker that he felt death was not far off. He was one of the wealthiest men of the South and was noted for his philanthropy. He had made a number of anonymous contributions for the equipment of city parks, to hospitals and to Tulane University.

An extraordinary suicide occurred at Bridgeport, Connecticut, where a boy of sixteen shot himself with his father's revolver, while holding a white carnation in one hand. He left a statement containing six reasons, as follows:

"1. The reading of 'Les Miserables';

"2. The thought that the world could get along just as well without me;

"3. I have a cold now and have that feeling of not living, anyhow;

"4. I have a feeling I don't care for the last two weeks;

"5. The thought of thinking of far-reaching questions—Who made the world? Is there any God? The theory of Darwin concerning the struggle for existence of the survival of the fittest; Has man a right to take the life of any other living thing, because all things are created equal?

"6. The reading the hand book of all, 'undecipherable,' has affected me terribly, as I do not know whether there is a God or not; as a matter of fact, no man positively knows."

The boy had attended New Thought meetings and unquestionably became unbalanced as the result of reading matters far beyond his years. It is said that he apparently was taken suddenly with the idea of hastening his end. He was studious and as far as his parents or his uncle knew had always had good marks. He seemed to be obsessed entirely in the study of chemistry. But he, no doubt, specialized on matters which he should have left alone.

Particularly suggestive is the suicide of a blind assemblyman of New Jersey, who shot himself, cut his throat and wrist and stabbed himself in the heart. He had been successful, after losing his eyesight, in making a fortune, and no definite reason could be assigned for the act, except

that he suffered excruciating pains. He was of a jovial disposition and very popular, especially in fraternal circles. His one remark before he died was that he simply "wanted to go."

Illustrative Cases—Gas.

Among recent gas suicides of special interest is that of the comptroller of a large corporation, guilty of defalcation. He was English by birth, forty-two years of age, and is survived by a widow and two children.

Another gas suicide was that of a junior at Bates College, reported from New London, Connecticut. He left a last message to his father, but this explained little. He, however, must have been suffering seriously from physical ailments.

Most of the letters left by suicides are nearly always indicative of disordered minds and often of a curious phraseology suggestive of mental disorders.

Pathetic in the extreme is the suicide report from New York City of a mother who killed herself and five young children by turning on the gas. She was apparently stressed for means, and after visiting her relatives had returned home with the statement that they advised her to put her children in an orphan asylum. Overwhelmed with sorrow at this suggestion and otherwise despondent, she sought relief with her children in death.

From New York City comes the report of the death by gas of a nineteen-year-old student of music and of philosophy, whose greatest ambition had been to become a painter. She appeared to have been in good spirits when last seen before her death and left no note of explanation or farewell. But she had been talking with her mother some time before, making the remark, "There is something poetic about suicide," and had probably been reading accounts of suicides with the usual lurid explanations.

From New York City there also comes the report of a former student of Bryn Mawr College, twenty years of age, who ended her life by gas, the act being contributed to overstudy and "a too active mind." It was explained at the time by the registrar of the college that "she represented the best of the modern girl and was popular with the other girls and with the faculty. She was very active and extremely talented. She was studying illustrating and we were looking forward to her return this autumn."

The very recent suicide of Mrs. Ruth Mason Rice, a well known writer and poet, was also due to gas. She had two daughters who were away at school. She had been complaining of excessive pain due to a carbuncle on the back of her neck.

A young woman law student who had been ordered by her doctor to give up her ambition to study law returned to her home and, with a closed book on psychology in her lap, committed suicide by inhaling gas. The girl's father said she had suffered a nervous breakdown from overwork two years ago. Regardless of her physician's advice, she had kept on studying law between periods of rest.

From Davenport, Iowa, comes the report of a boy, fourteen years of age, who committed suicide by gas and who left a long letter containing in part this statement: "It is my belief that my spirit will some day enter into the body of a playwright and will call forth a story of a boy who loved to dream, the story of a boy who was so disillusioned that he couldn't stand it any more. The play will make men famous and yet it will be my story, so my ambition will not be unfilled." The boy was of a literary turn of mind and an admirer of stage stars, with whom he carried on an extended correspondence.

Cases of this sort clearly emphasize the trend of our modern education, which fails to realize latent or unusual abilities and properly turn them to account.

Illustrative Cases—Drowning.

While suicides by drowning are not as common as suicides by poison, gas or shooting, they represent a group which is much more difficult to prevent and to control. Among recent suicides of this class is that of an instructor of Spanish at Columbia University, thirty-two years of age, who leaped from a liner near the harbor of New York. The only theory advanced was that overstudy had brought on suicidal mania.

Another suicide by drowning was that of Congressman Maurice E. Crumpacker, of Oregon, who leaped into San Francisco Bay, after writing poison plot notes. In the words of Speaker Longworth, "the tragedy was unexplainable." He apparently had feared a plot upon his life or reputation. His home life is said to have been ideal. He is survived by a widow and three sons. He had served as an army captain in the World War and it is implied that some of the burden of that service may have been responsible for his breakdown. The Boston *Herald* in an editorial note on the suicide concludes that "It is becoming increasingly apparent that young men who went through the war on the other side subjected their nervous systems to a strain, the full effects of which did not, in the majority of cases, show themselves at once, but are cropping out, unhappily, as the burden of the years adds its inevitable weight."

A prominent Worcester, Massachusetts, attorney, in view of scores of men, women and children passengers, leaped from the upper deck of the Rose Standish into the harbor off the Hull Yacht Club. He was a Harvard graduate of the class of 1901 and of the Law School of 1904. Last year he mysteriously disappeared for a time. Apparently he had mismanaged an estate and was in financial difficulties.

A retired colonel of the United States army committed suicide last year by jumping from the Cunard steamship Tuscania into the sea. His body was subsequently recovered off Nantucket. He was bringing home the body of his wife, who had died in Paris. He had jumped while the steamship was in a dense fog about one hundred miles from shore. He was sixty-seven years of age and a graduate of West Point in 1880. He had been married forty years, but apparently there were no children.

Another suicide at sea was that of a woman who crawled through the porthole of a cabin on the steamship Aquitania, near Nantucket lightship. She was sixty-three years of age. She had made a threat of suicide the

previous evening to her daughter, but her suggestion had been taken lightly, as usual.

Illustrative Cases—Cuts and Stabs.

Suicides by slashing or stabbing are comparatively rare in this country. Frequently those who end their lives in this way are foreigners. A Mr. Anton Zimmerman, of East Aurora, apparently to end the intense pain he was suffering while pinned under an incubator he was dismantling, slashed his throat with a pocket knife and died a few minutes later. He was a farmer and lived three miles outside the village.

Mr. Harry Jasinsky, of Chelsea, Massachusetts, attempted suicide, while eating his breakfast, by slashing his throat with a large knife, which he seized from the table, after announcing his intention to kill himself. It seems he made a previous attempt of a similar kind.

A professor of mathematics at Louisville University, Kentucky, was recently found dead in his room at a local hotel. His wrists and throat had been slashed with a razor. He had nearly $30,000 in bonds and cash in his possession. This suicide occurred near Christmastime, and it is said in a newspaper dispatch that he was a lonely man who looked to study and music as his only solace. He also had been apprehensive he might lose his connection with the university. He was born in the United States but was the son of an Austrian scholar. He was not married.

Illustrative Cases—Hanging.

Hanging is fairly common as a method of suicide, and next to drowning perhaps the most convenient. A particularly suggestive recent case is that of the son of a well known poet, lecturer and critic. He apparently was extravagant in his habits, had exhausted his resources, overdrawn his bank account, etc. He had taken the prescribed mental and physical tests of the university and was found to be normal in all respects. There were no letters or messages of any kind. In his father's words, "He was a healthy, normal boy of twenty who was in good standing in his studies. For me there is neither understandable motive nor explanation of what actually took place."

Another University student, at Princeton, twenty years old, hanged himself in a dormitory, after he had swallowed poison. This was the second suicide at Princeton and the twenty-sixth student suicide at American universities in 1927. There were eight such deaths in January, thirteen in February and five in early March. Twenty-one victims were boys or young men; five were girls. Fourteen suicides occurred in colleges or universities; twelve in lower institutions. Thirteen students ended their lives by shooting, four by poison, four by gas, three by throwing themselves under trains, and two by hanging. They chose to die from various motives, ranging from failure in studies to overstudy; from physical illness to neurotic maladjustments. In the case under consideration, the medical and physical director stated that he had found the student suffering from incurable intestinal trouble. What he means by that is not explained.

Suicide by hanging is relatively common in prisons. In the Bronx, in 1926, a man arrested for robbing his mother hanged himself with his belt in a cell in the Bronx County jail, while in Doylestown, Pennsylvania, a man awaiting trial for the murder of his wife hanged himself in his cell. It was his third attempt to end his life, but apparently no serious attention had been given to the possibilities in the case.

After leaving a sanitarium in Summit, New Jersey, a pastor of a Brooklyn church committed suicide by hanging himself from a tree. He was a graduate of the New Brunswick Theological Seminary. He served during the war as a chaplain. He is survived by a widow and two children.

From Norwich, Connecticut, comes a report that "For twenty years Thomas Gryskiewicz had threatened to commit suicide. He succeeded when he hanged himself in the cellar of his home. His wife and six children survive him."

From Lawrence, Massachusetts, comes the report of the suicide of Joseph W. Conroy, father of nine children, a World War veteran, who hanged himself with a necktie attached to a bedpost. He was despondent because of ill health.

A negro, in a report from Chicago, hanged himself in an Evanston jail cell, using his shirt and shoestrings for a noose. He had been arrested on a disorderly conduct charge.

Illustrative Cases—Dynamite.

At Peabody, Massachusetts, William Vanderbilt, a dynamite expert, committed suicide by standing in the middle of a circle of seventy-five sticks of explosive and setting them off. In the blast that followed his body was torn to pieces and Essex County was shaken as if by an earthquake. He apparently had some trouble about a litigation, but no definite explanation as to the reason of suicide was forthcoming.

From Ellsworth, Maine, comes a report of a lobster fisherman and alleged bootlegger, who committed suicide by setting off a heavy charge of dynamite while he sat in his sedan. Going to the bedroom of his oldest daughter, aged fourteen, and bidding her good-bye, he got into his car and drove through the village, returning to the schoolhouse, where the charge was exploded. According to the neighbors, he had been acting queer for several days.

Finally, there is a record of the suicide of a coal miner in Logan, West Virginia, who ended his life by sitting on fifteen sticks of dynamite and igniting them at the Braehold clubhouse.

Illustrative Cases—Jumping from High Places.

As previously said, suicides by jumping from high places are apparently rapidly on the increase. In Buffalo, New York, a woman about sixty years of age, registered at the Y. W. C. A. Hotel, ended her life early in the morning by diving head first from a third-story fire escape.

In Providence, Rhode Island, a woman ended her life by leaping from the fifth story window of an apartment house. She had been suffering from a nervous ailment since the birth of her child.

The 110th Street Elevated Station at Manhattan Avenue, New York, is frequently referred to as the "suicide station," on account of the suicides which have occurred there. Early this year a woman, about twenty-one, jumped from the loading platform, striking the pavement more than a hundred feet below within a few feet of a group of taxicab drivers. She left a note in which she stated illness caused her act.

In New York City, the wife of a cotton broker was instantly killed in a fall from her window on the thirteenth floor of the Hotel Buckingham. She seems to have been grieving over the death of her husband. Questions were raised as to whether it was suicide or accident, but that is usually the case. It is, of course, impossible to say, but the inference is that no sane person would, except for perfectly obvious reasons, fall out of a window of a thirteen-story building.

On September 6, 1927, a man leaped from a window on the eleventh floor of the new and partially unoccupied loft building at 245 Fifth Avenue, and landed on the pavement on his head in the middle of the avenue, a short distance south of 28th Street, and was instantly killed.

A man also jumped from a third-story window near 159th Street, New York, and was killed. He had been suffering from heart trouble for a year. At breakfast he had dictated the note to his wife that made her suspicious that he intended to end his life. He asked her to get his bathrobe from the bedroom, and, as she turned, he casually arose from the table and climbed to the window-sill. She rushed over and struggled to prevent him from leaping. Her strength was insufficient, and with a final tug he freed himself and plunged out.

From Lewistown, Pennsylvania, comes the report of the death of a professor of electrical engineering at Rutgers University, who was killed in a fall from a third-story window of a local hotel.

A former imperial Persian consul-general was instantly killed when he fell from a window of the Yale Club into Vanderbilt Avenue, seventeen stories below. He was sixty-five years of age.

In Philadelphia a man challenged his brother-in-law to jump from the middle of the Delaware River bridge, which cost the victim his life. The two had agreed that if one jumped the other would follow, but he did not do so.

On November 20, 1926, according to a newspaper dispatch, despite extra precautions to prevent suicides at the Washington Monument, an inmate of the Soldiers' Home of Washington killed himself by crawling through the iron grating at the top of the shaft and leaping out, falling to the pavement more than five hundred feet below.

After a six months' fight against a nervous breakdown, a twenty-five-year-old descendant of two of New York's most notable families leaped or fell from her sixth-floor apartment.

Casting aside a newspaper containing an account of a would-be movie actor who leaped to death from Williamsburg bridge, a man past middle age jumped from the center of the Manhattan bridge the day following.

Illustrating the difficulty of deciding whether a case is suicide or accident, brief reference may be made to the recent death of a former Harvard football player, noted golfer and prominent in banking circles, was killed by a fall from the fifth story window of his office building in Philadelphia. He had been reported mentally sick according to members

of his family. Whether he committed suicide or whether the fall was accidental are seemingly not ascertainable. The inference, however, is that the case is one of suicide. Such a confusion of facts and conditions is apparently increasing. There was recently a case reported in the Boston papers of a person who fell, jumped or was pushed before an incoming train involving the possibility of accident, suicide or murder.

Illustrative Cases—Poison.

Poison suicides constitute a substantial fraction of the annual toll of self-murder. The sale of poison or poisonous substances suitable for the purpose is unquestionably surrounded by restrictions which are far from effective. Women, particularly, can without difficulty buy "rough on rats" or other vermin exterminators containing poison. I have often felt that such poisons should only be sold to officially licensed vermin destroyers and not to the general public. Even children, in some cases, have no difficulty in securing poison at the nearest drug store.

A woman, once wealthy, struggling hard to become used to the trials of a telephone company employee, became discouraged and swallowed several tablets of bichloride of mercury and died at the Bellevue hospital.

A woman writer ended her life by swallowing the contents of one of four bottles of poison which were found standing in a row on her trunk. She was a member of a Richmond family. She was ill and apparently without means and without work.

Failure to pass the New York medical board examinations, coming on top of other disappointments, broke the spirit of a doctor, whose body was found in a locked stateroom of the steamship New York. Marital difficulties seem to have added their complications. He had made various threats of suicide. A warped mind, it is said, finally conceived the idea of death in a manner that would prove a puzzle and possibly remain unsolved. He had injected narcotic poisoning with an intravenous syringe, which he hoped would never reveal how death had occurred.

A woman in Waltham, Massachusetts, became suddenly insane, drowned her two children in a bathtub and then swallowed poison, dying shortly afterwards.

A high school boy in New Jersey killed himself by swallowing paris green in a church and then turning on the gas in the building.

A Quincy woman found death by taking poison beside the grave of her husband. She had been melancholy for some time past.

The daughter of a wealthy Weymouth quarry owner attempted suicide by poison and ether. In all such cases no efforts seem to have been made by the authorities to trace the source of the poison, which would help in affecting the control of poisonous substances. Drug stores unquestionably are much to blame for countless sales of poison substances useful for legitimate purposes if in the hands of responsible parties.

In Taunton, Massachusetts, a woman took her five-year-old son for a ride on his sled, but returned a short time later carrying the little boy in her arms, dead. She said to her mother, "I have just given Jackie

poison." She had also taken ten bichloride of mercury tablets herself, but apparently had chances of recovery. What became of the case subsequently is not a matter of record.

In White Plains, New York, after drinking the contents of a pint bottle of lysol, which his wife fought to take from him, in the cellar of their home, a doctor, fifty years old, died in the White Plains hospital. He was an osteopath with an office in New York. He was descended on his mother's side from Benjamin Franklin and on his father's side from Samuel Adams.

Illustrative Cases—Suicide Pacts.

Suicides sometimes imply the possibility of a pact between two or more parties. I have never given much credit to so-called suicide clubs, although their existence is a matter of reasonable conjecture. The vast amount of pessimistic literature extant naturally fosters a contempt for life and the human struggle. Double suicides of women are frequently suggestive of abnormal relations which need not be discussed. The most pathetic of these suicides are when a man and wife find it impossible to continue existence in the face of poverty and unemployment. Such a case occurred recently in Washington, where a man and wife were found dead in a fashionable hotel, while friends in distant cities were requesting the police department of Washington to interfere in the contemplated suicides. Apparently having deliberately planned to die together because they had no financial means of going on, the couple chose the hotel, only a block or so from the White House, as the scene for their deaths by poison. It was indicated by telephone calls from Brooklyn and Providence that the couple had notified somebody of their intention, for the hotel was urged in a call from Brooklyn to find them at once. Two notes were found, one addressed to the hotel management expressing regret over causing the hotel trouble and inclosing check for the bill due. The other was addressed to the superintendent of police, containing $100 and a request that the bodies be cremated.

In Haverhill, Massachusetts, a man and wife committed suicide in their home by gas. The woman had threatened to end it all for some time, telling her neighbors the day before that she was discouraged because of her husband's ill health and his inability to secure a position.

From San Francisco comes the report of a dramatic but unsuccessful fight against the drug evil in the discovery in a local hotel of the bodies of an Oakland woman and a Boston man. The couple were found lying on the floor of the room with a revolver nearby. The man had confessed that the woman had started him to using drugs but that they were both making a stubborn fight to conquer the habit. The man was in need of financial support and had applied to relatives but without effect.

Illustrative Cases—Suicide and Murder.

Suicide and murder often go together. Murder in such cases frequently implies obvious evidence of insanity or maniacal frenzy. Often such cases are the result of jealousy or the resentment of a divorced husband who returns to kill his divorced wife before ending his own life.

Here again the indications of abnormalities are often ignored or taken lightly. In Spokane, Washington, a railway laborer mortally injured his divorced wife and seven-year-old daughter, injured his eleven-year-old son and a family acquaintance, and then committed suicide.

In Winterport, Maine, the local librarian, a woman, first shot her husband, aged sixty-six, through the head, and then turned the revolver on herself. She was a prominent woman in the village and one of the most highly respected members of the community. For some months she had been in poor health and had talked of various methods of dying. She is survived by a son and a daughter.

At Los Angeles a golfer first shot his opponent and then ended his own life, after a quarrel over the outcome of the game.

In Chicago the body of a woman employee of a hat company was found on the sidewalk early in the morning thirty feet from that of a man, thirty-one years of age. Both had been shot in the head. The relation of the two was apparently not determined, but the fact of suicide and murder was obvious.

In Toronto a Russian, about forty years of age, shot and killed a fellow countryman and then put three bullets through his own body, dying in a few minutes.

In Alligator, Mississippi, a quarrel over a small sum of money led a man to shoot another to death and then kill himself. Both were operators of nearby plantations. One was the vice president of a bank in Clarksdale.

In Fairview, New Jersey, the bodies of a husband and wife were found on the road near the village last December. The woman had been shot four times through the left breast, while the husband had one bullet wound through his heart. In his hand was an empty pistol. The police agreed it was a case of murder and suicide. The couple had frequently quarrelled and finally separated. The man was seeking reconciliation but his wife refused.

At Council Bluffs, Iowa, a millionaire sportsman shot and killed his wife, seriously wounded his sister-in-law and then ended his own life by shooting. The two had been quarreling for four days previously.

In Utica, New York, a family of seven were found slain in their squalid home in a tenement district. The father, aged thirty-six, killed his wife and children to prevent them from starving and then committed suicide. The throats of all had been cut with a large knife or razor, both of which were found near the bodies. The man had been out of work for some time, and the interior of the home showed that the family was in desperate circumstances.

In Lexington, Kentucky, after writing his will and making all preparations for his death, a wealthy restaurant and hotel man, seventy years old, killed himself in the bathroom adjoining his room immediately after he had shot to death a woman of twenty-six in an adjoining room. The girl was a telephone operator of Brooklyn, who had accompanied the man on a motor trip to Lexington. She was shot while she was asleep. They had been quarreling over a ring. The man posed as the girl's uncle.

In Marion, Illinois, during a sudden fit of insanity, a former state senator and United States district attorney killed his wife, two daughters and two granddaughters, one a three-weeks-old baby, and then

drowned himself in a cistern at the rear of the house. The skulls of each of the five victims had been crushed with an iron furnace-shaker. Evidences of a terrific struggle were found in several of the rooms. Relatives declared that the man had recently been brooding over financial losses, ill health and the loss of his position as United States district attorney about four months previously. He is also said to have lost money in a St. Louis insurance company and in Florida land developments. A brother-in-law testified that the man in question had recently told him that he planned to take his own life. Here again obvious indications of serious trouble were complacently ignored.

In New York City a Chinese restaurant proprietor and his mulatto wife, twenty-seven years old, were shot and killed by another Chinaman, who then ended his own life. It apparently was a case of jealousy.

At Columbus, Kansas, a boy of thirteen shot and killed his mother, seriously wounded two sisters, and then killed himself. The boy and his brother had been cultivating corn in a field nearby and it is believed he became deranged from the heat. He went to the house for a drink, obtained a 12-gauge shotgun, shot and killed his mother. He then calmly reloaded the gun, shot his two sisters, reloaded and killed himself.

At Sheboygan, Wisconsin, the pastor of the Lutheran Church and another man were shot and killed by the latter's son, who then ended his own life. No motive for the act could be established. The second man killed was the father of ten children, while the first had twelve children.

At South Torrington, Wyoming, a minister of the Baptist Church shot and killed his wife, forty, and four of his five children, ranging in age from four to fifteen years. He then committed suicide. The motive for the deed was not established, but it is supposed that gossip and domestic troubles were responsible.

At Farwell, Texas, a man murdered his wife and eight children, whose axe-hacked bodies were found in the cellar of the farmhouse early in the morning. Of course, in this case the insanity theory was advanced and generally accepted.

In Marlow, Oklahoma, an entire family of five was killed at a farm five miles north of the town and their bodies were cremated in a fire that destroyed their home. According to the coroner, the head of the family committed the deed, and then ended his own life.

Some more recent cases may be of interest in this connection. At Shanor, Pa., a man brooding over debts, his household goods having been levied upon, killed his aged sister and then killed himself. Yet the authorities found more than sufficient money among the sister's effects to cover the mortgage, and concluded the murder and suicide resulted from a quarrel over the refusal of the woman to hold herself responsible for her brother's obligations.

In New Bedford, Mass., a man and his wife quarreled over a trivial matter. He fired three bullets into her body and then killed himself.

In Worcester, Mass., a woman aged 42 and her son aged 10 were found dead in the bedroom of their home, victims of gas asphyxiation. In the opinion of the police, it was a case of homicide and suicide. The mother had been suffering from ill health for a long time.

In Brooklyn, New York, a woman who had threatened suicide many times administered poison to herself and to her mentally defective

sixteen-year-old boy. She had threatened suicide time and again on the ground that her boy could not live without her in the event of her death. She was despondent because the boy showed no improvement, although he was still in school, and because he often was annoyed by other pupils on account of his mental affliction. One of her remarks shortly before her death was, "I'll kill myself and the children, if this keeps up much longer." Her threats, of course, were not taken seriously.

Suicide in the United States Army.

In one of my reviews I deal briefly with the suicide statistics of the United States army for a period of years. There is possibly no phase of the suicide problem that is of greater interest than the self-destruction of officers and enlisted men of the army, brought up under exceptional conditions of self-discipline and self-control. If any one, the soldier, and particularly the officer, is expected to present an example of moral and physical courage and the capacity to suffer and to endure whatever the conditions of life may be. Yet we find, in proportion to the mortality from all causes, suicides in the army constitute a measurable factor of no small importance. Of course, the actual mortality from all causes is relatively very low, so that suicides assume a rather undue proportionate position. Hence it appears that among the officers of the United States army during 1925 suicide was the second most important cause of death, precisely equivalent to deaths due to automobile accidents. Among white enlisted men suicide was the leading cause of death, or 0.29 per 1,000, against 0.25 for pneumonia and 0.23 for automobile accidents. The corresponding rate for officers from suicide was 0.44 per 1,000, or substantially higher than for white enlisted men. Suicide rates were also unusually high among Porto Rican troops, or 0.90 per 1,000. During the period 1916-1925 the average mortality from suicide in the entire United States army was 0.19 per 1,000. For officers only, it was 0.37, and for white enlisted men 0.17. Against this the rate for colored enlisted men was only 0.08, for Filipinos 0.10, while for Porto Ricans it was 0.82. The highest rate from suicide during the period under review occurred in 1916, or 0.45, and the lowest rate during the war year of 1918, when it was 0.13. The details for several years and several ranks are given in the table below.

Mortality from Suicide, U. S. Army—1916-1925.
(Rate per 1,000.)

	Officers	White Enlisted	Colored Enlisted	Filipinos	Porto Ricans	Total Army
1916	0.78	0.43	0.36	0.18	1.05	0.43
1917	.44	.20	.39	.....	.52	.21
1918	.28	.12	.04	.17	.....	.13
1919	.40	.12	.02	.12	1.91	.15
1920	.42	.32	.11	.....	.65	.31
1921	.23	.29	.....	.....	.....	.26
1922	.64	.27	.55	.15	2.58	.35
1923	.27	.34	.45	.14	1.69	.35
1924	.53	.33	.24	.....	.86	.34
1925	.44	.30	.....	.30	.90	.31
Total	.37	.17	.08	.10	.82	.19

The annual report of the surgeon general of the United States army for 1926 contains the following interesting supplementary observations as to suicides and neurasthenia: "The annual admission rates per 1,000 from neurasthenia and psychoneurosis from 1917 through 1924, and from the former from 1915 through 1916, show first, that the officers had much the highest rate for every year; second, that the white enlisted men had the second highest rate for every year except in 1919; and third, that the rate for the Porto Ricans ranked next to that for the whites, with the one for the colored fourth and for the Filipinos fifth." It is shown that for officers the trend of the suicide rate followed very closely that of the combined rates of the two nervous diseases. "The only year in which the two trends of the two rates were dissimilar, prior to 1925, was in 1918, when there was an upward trend in the admission rate from the two nervous conditions but a marked drop in the suicide rate, due apparently to the low rate from this cause not only in the army but also in civil life, the result of the intense interest in war-training and activity during the war period. In 1925, however, the rate from neurasthenia and psychoneurosis was higher than in 1924, but the suicide rate was lower."

In addition to the foregoing, it may be said that during the years 1920-1925 the pistol was the means of suicide in 77 per cent of the cases among officers and 52 per cent among the white enlisted men, other firearms were the means in 20 per cent of the cases among the white enlisted men and 29 per cent among the colored.

Suicide and War.

During the war, according to the statistical report of the medical department, there were 611 admissions for suicide, including native troops. The total number of suicides of officers was 68. The number of army suicides in the United States was 411 and in Europe, excluding Russia, 153. In proportion to the enlisted force, the suicide rate for the entire army, including native troops, was 0.15 per 1,000. It was the same figure for officers and enlisted men of American troops only. It was 0.33 per 1,000 for officers, 0.13 for white enlisted men and 0.06 for colored enlisted men, or a total of 0.14 for all enlisted men. For native troops the rate was 0.28. For officers serving only in the United States, the rate was 0.31. For enlisted men, white and colored, it was 0.18. For officers serving abroad, it was 0.35 and for enlisted men, white and colored, 0.08. For all officers and enlisted men combined serving in the United States only, the suicide rate was 0.18 per 1,000, against 0.09 for officers and enlisted men serving abroad.

As far as it is possible to judge, practically all the admissions for suicide terminated in death, for while the number of admissions was 611, the number of deaths reported was 607. It is not necessary, therefore, to give separate figures for the mortality since, for all practical purposes, the admissions are the precise equivalent of the deaths.

Suicide in the United States Navy.

In the United States navy, there were 45 cases of attempted suicide during 1925, of which 26, or 57 per cent, resulted in death. I am not

aware of any corresponding figures for attempts at suicide in the United States army reports. The suicide rates per 1,000 of the total personnel since 1916 have been as follows:

Mortality from Suicide, U. S. Navy—1916-1925.

(Rate per 1,000.)

1916	0.34	1921	0.21
1917	0.19	1922	0.18
1918	0.15	1923	0.30
1919	0.17	1924	0.30
1920	0.22	1925	0.23

For officers of the United States navy for 1925 the suicide rate was 0.49 per 1,000. For officers of the marine corps it was 0.80. For enlisted men in the navy it was 0.15, and for enlisted men in the marine corps, 0.43. In the aggregate there were 26 deaths from suicide in the navy during 1925, of which four were officers of the navy and one an officer in the marine corps, the remainder being enlisted men. It is of interest in this connection that in some cases the suicides were officers or men who had been many years in the service. One lieutenant-commander who had been nineteen years in the service committed suicide at the age of thirty-six. Another lieutenant, junior grade, of the medical corps, age forty, had been thirteen years in the navy. A chief gunner, aged forty-six, with twenty-three and one-half years of service to his record, committed suicide by hanging. A sergeant of the marine corps with thirteen and one-half years of service killed himself by shooting with a pistol. Another sergeant, aged forty-five, with twenty-five years of service to his record, swallowed nitric acid.

Recalling that the suicide rate in the United States army in 1925 was 0.31 per 1,000, the suicide rate of the navy having been 0.23, the latter branch of our service is apparently less liable to suicide than the former. The age constitution of the two branches probably does not differ sufficiently to account for the marked variation.

Attempts at Suicide.

It is regrettable that there should be no comprehensive body of statistics regarding attempts at suicide, which far outnumber those that are successful. Perhaps the returns for the city of Chicago are, however, fairly representative for all large cities and I venture to include with reference hereto a few data and observations. According to the report of the chief of police for 1925, there were in that city as many as 672 suicidal attempts which fell short of being successful. Since the number of deaths from suicide in Chicago during that year was 430, it appears that the total number of persons in Chicago seeking to end their lives in 1925 was 1,102. In other words, of all suicidal attempts, only 39 per cent were successful. Since the approximate number of deaths from suicides in the continental United States in 1925 was about 15,000, it would appear on this basis that the possible number of persons contemplating suicide that year throughout the country was not less than 37,000. It may have been several thousand more but not likely many less. But even police reports of suicidal attempts can not be expected to record the

many cases known only to the family and attending physicians. Hence the suicide problem is, therefore, of much greater extent and complexity than the suicide figures of mortality indicate. Laws punishing attempts at suicide naturally lead on the one hand to greater care in the execution of the deed, and, on the other, to failure to disclose the facts of the attempt to the police, when it is possible. But it is a safe conjecture that for every successful suicide there are probably two that fall short of being successful.

The problem being as stated, it is obvious that in the whole realm of social pathology, suicide ranks first as the most serious concern of organized and normal society, and in a large measure society must assume the responsibility for those who lean towards the borderland of sanity and insanity, or who are, in other words, to a certain degree mentally irresponsible for their actions. Suicide, then, is essentially a problem of conduct, and its disorders are admirably dealt with in its larger aspects by the late Dr. Charles Mercier. If suicide in itself is not precisely a form of misconduct, it is certainly in a countless number of cases the result of misconduct contrary to the rules and interests of organized society.

Motives of Suicide.

Dr. O. Kürtin, in a treatise on "Statistics of Suicide in Saxony," has brought together an immense amount of information which, though subject to a strictly local application, is nevertheless of interest in this connection. I extract from this work the following table, for the period 1905-1909, of suicides by motives in the Free State of Saxony.

Motives of Suicide—Saxony.

	Males	Females
Mental and nervous diseases	29.7%	49.4%
Bodily ailments or diseases	15.5%	15.7%
Hunger or starvation	7.4%	1.1%
Matrimonial or domestic difficulties	3.8%	3.2%
Anticipated punishment	8.3%	4.6%
Alcoholism	5.8%	0.3%
Injured pride	1.0%	1.3%
Weariness of life	6.8%	4.6%
Love disappointments	2.5%	7.8%
Other reasons	2.6%	1.9%
Unknown	16.1%	10.1%

Suicide and Mental Disorders.

A study of motives for different periods of time and according to age and sex affords much room for speculation, but for definite conclusions the data would have to be subjected to an extended minute and critical analysis. The outstanding facts of the foregoing tabulation is, however, the large proportion of suicides attributed to nervous and mental diseases or disturbed mental conditions. It is a question, of course, whether such diseases are really on the increase in this country or only apparently so. There is, however, evidence to this effect provided by the census, which may be referred to on this occasion. In 1850 the number of patients with mental diseases in hospitals or insti-

tutions in the United States was 67.3 per 100,000. By 1890 this proportion had increased to 170.0 and by 1923 the proportion was 245. How far this increase is the result of better hospital and institution facilities can not be stated. The actual number of insane in the total population was not enumerated. Such efforts in the past have usually shown that they could not be relied upon as trustworthy in view of efforts being made to hide the facts from the census enumerator. From another point of view, there is some instructive information in a recent address by Dr. William House, of Portland, Oregon, on "Some Socio-Economic Problems in Neuropsychiatry," delivered before the Section of Mental Diseases of the 78th Session of the American Medical Association, 1927. According to Dr. House, 42.5 per cent of all hospital beds in the United States and 51 per cent of all beds in use are for neuropsychiatric patients. The number of such beds in actual use is given as 322,991. But these figures do not include beds for neurologic patients in almshouses. According to the same authority, the number of deaths from diseases of the brain and nervous system was 121,656. Yet he points out that only 3,211 physicians specialize in neuropsychiatry. He gives an interesting table of deaths from different types of nervous diseases, which is reproduced below:

Number of Deaths from and Rate per Hundred Thousand of Population of Diseases of the Nervous System and Organs of Special Sense.

	Number	Rate
Encephalitis	1,245	1.3
Meningitis	3,652	3.8
Tabes dorsalis	1,695	1.7
Other diseases of spinal cord	3,106	3.2
Cerebral hemorrhage	84,177	86.8
Cerebral embolism and thrombosis	2,677	2.8
Paralysis without specified cause	6,056	6.2
General paralysis of the insane	6,421	6.6
Other forms of mental alienation	1,614	1.7
Epilepsy	3,088	3.2
Convulsions (over 5 years)	159	0.2
Infantile convulsions	1,882	1.9
Chorea	102	0.1
Neuralgia and neuritis	354	0.4
Softening of brain	853	0.9
Other diseases of nervous system	4,575	4.7
Diseases of eye and adnexa	89	0.1
Diseases of ear and mastoid process	3,262	3.4
Total	125,007	129.0

He observes in this connection that, "Thus, at a time when most could be done for them, when a few words of kindly, understanding advice might be sufficient to stabilize tottering mentalities, they search for physical causes for their disorders, seeking removal of some diseased organ, or, even more commonly, visiting healers, mechanotherapeutists and divers other inspired magi, reaching the neuropsychiatrist only after every other avenue has been unsuccessfully tried, and frequently when all hope is indeed lost." It is in such a moment that suicide is most likely to occur among the mentally unbalanced, who view the future in a condition of absolute despair. That such cases represent possibly

from one-fourth to one-third of the whole number of suicides is a reasonable conjecture. It has properly been said by Maudsley in this connection that, "An insane delusion, though psychologically unaccountable, has its foundation in the inexorable logic of pathology, and persists by perverting to its own use and maintenance the reasoning which should render its existence impossible. To hold an insane person responsible for what he feels and does in consequence of his insanity would be no less unjust than to hold him responsible for entertaining his delusions, in spite of the plainest evidence to contradict them." Just as our treatment of the insane has undergone profound changes during recent years and towards a more humanitarian point of view, there is the most urgent necessity to take the mental attitude of persons contemplating suicide more seriously. The evidence is absolutely convincing that in countless cases a sufficient amount of warning had been given, which, if heeded, might have saved an otherwise valuable life. It may be laid down as a fundamental principle that no person in a sound state of mind ever gives utterance, and particularly repeated utterance, to being weary of life or wishing for death. What is most needed in such cases is sympathy and a profound desire to understand the facts of the actual situation confronting the patient concerned. Unfortunately in too many such cases, such persons are ridiculed or treated with indifference towards the point of disaster.*

Number of Patients in New York State Institutions for the Insane 1880-1926.
(Per 100,000 of Population.)

Year	Male	Female	Total	Year	Male	Female	Total
1880	246.1	277.2	261.8	1920	376.2	409.1	392.7
1890	252.0	281.0	266.6	1925	407.6	425.9	416.8
1900	317.9	336.2	327.1	1926	414.9	424.7	419.8
1910	341.4	375.4	358.3				

Heredity and Family History.

The subject of heredity in suicide has frequently been discussed but invariably without adequate data to support the theory that a tendency to suicide is inherited in the strict sense of the term. What is more likely is that the powerful effect of suggestion in a family record operates in a measurable number of cases to affect the offsprings in a like direction. Certain cases are not infrequent in which a number of suicides have occurred in repeated generations. It may be safely asserted that there is no legacy of more sinister aspect than a suicide record in the family. If those who commit suicide could only realise the evil consequences of their action upon offsprings, they would often, no doubt, be prevented from ending their own existence. On the other hand, there are strong reasons for believing that on this very account suicide is often hidden or so obscured as to make the evidence exceedingly doubtful. In suicide, as in crime, the tendency seems to be towards more subtle means, which make a definite verdict difficult, if not impossible. But the hereditary influence of suicide is, after all, operative

* I am able in this connection to give a table of admissions per 100,000 of population to New York State Institutions for the Insane since 1880, which, however, has been abbreviated for the present purpose, suggestive of a decided increase in mental disorders, which in part is explained by the more extended use which is made of public institutions at the present time compared with the past. It is, however, generally accepted that a considerable portion of the increase in mental diseases is real and not merely apparent.

in only a small fraction of the annual number of cases that occur in this country. Straham observes at, "We know, as a fact, that there is no abnormal constitutional state more commonly transmitted from parent to child than this tendency to self-destruction, and that the major part of the annual increase of suicide, as well as of other degenerate conditions of which we have spoken, is due directly to propagation is absolutely certain." This view can not be reconciled to the fact that suicide in this country has decreased during the last ten or fifteen years rather than shown a tendency to increase. But in European countries where conditions of life are more stable and changes of environment are less frequent, the heredity effect may be more pronounced.

Suicide and Physical Pain.

The question, of course, arises as to whether suicide is ever justifiable on physical or moral grounds. The question is of very serious importance to persons who suffer from an apparently incurable disease. I use the word "apparently" advisedly, for even in many seemingly hopeless cases, cures are sometimes effected, or at least the suffering is materially reduced by skilful treatment. The argument is often advanced that in such cases doctors should be authorized to terminate life in their discretion. But public opinion will never sanction such a procedure, for, after all, there is much to be said for the old proverb that "As long as there is life there is hope." But I may call attention to an extraordinary case, in which a suicide was apparently justifiable. The case was reported from Columbus, Missouri, in 1922. The case was that of a young woman whose dress had caught fire during a windstorm and who found herself in an inextricable position. Her body was burned to a torch, but before she could be rescued she had placed the blade of a butcher knife, which she accidentally had in her possession, to her throat, dying soon after. In this case the young woman had suffered a previous and very painful injury by being burned. She had often said that she would prefer death to the agony she had suffered on the previous occasion. There was an extended clerical debate at the time, but on strictly partisan grounds. It was held by some of the clergy that the commandment "Thou shalt not kill" applied in the present case and that the young woman should have endured her sufferings to the very end.

Prevention of Suicide.

The question naturally arises in a critical discussion of the suicide problem as to whether a measurable proportion of the suicides that occur can not be prevented. The question divides itself into the prevention of suicide in persons obviously mentally disordered and in persons of an apparently rational state of mind but seriously disturbed by social or economic problems suggesting self-destruction. Unquestionably insane persons or persons suffering seriously from mental depression require to be more carefully watched and cared for than is often the case. If there is a hereditary taint of suicide, extraordinary vigilance is called for, for a record of suicide in the family is probably one of the most depressing facts on the mind that can be experienced. It has been said by Westcott

in his treatise on suicide published in 1885, that "The slightest symptoms of mental alteration should be watched for; alterations of conduct, the attitude of suspicion, or of self-accusation, of unnecessary melancholy. The facial expression will frequently raise the alarm; the restless uneasy eye, and every varying play of the muscles of the face in one case; and the settled glare of the eye, and expressionless features in another, should warn observers of an approaching crisis of disordered intellect." As regards the prevention of suicide in apparently sane persons, the same writer observes that "The continuous poring over one's troubles, and contemplating one's fate, without the definite lengthy intermission given by healthy sleep, are most fertile causes of nervous breakdown, and attempted self-destruction. The occurrence of a long night's slumber frequently entirely removes the pernicious intentions at which an overwrought brain arrived over night. . . . The cultivation of a religious conviction of the sanctity of life, and the sin of a self-inflicted death is a more certain hindrance to suicide. Persons who are unable to obtain this mental conviction, are, I believe, more prone to take their lives in time of trouble, and, beyond good advice and the care of their friends, I do not know that any means exists to restrain them. . . . Among measures of precaution, the removal of suggestive weapons, and of books and papers likely to bring to recollection instances of crime or self-destruction, must not be omitted. Every effort should be made to secure full occupation for the mind of a composing character if possible; ennui or tedium vitae is an important predisposing influence."

The subject of the prevention of suicide received more extended consideration in a treatise on suicide, by O'Dea, who agrees with other authorities that "Suicide is always increased with a decline of religious faith and moral restraint." The same writer observes that "Suicide is comparatively infrequent in countries where the material conditions are favorable to health and happiness." He reviews the laws against suicide advanced in a view that "It seems only right and proper that the statutes of every civilized country should contain some prohibition of suicide under penalties which would satisfy the presumed moral sentiment of society without either insulting the body of the suicide or depriving his heirs of their inheritance." In my opinion, laws against suicide are not only ineffective but provide an encouragement for more deliberate means to make sure that the desired end will be achieved. I, however, entirely agree with O'Dea that "These means will be found in religious and moral training; and in medical treatment." This he reviews at length in his work, which can not be abbreviated to advantage. But no mere religious or moral platitudes will serve the purpose. The suicide generally is perfectly rational and not ignorant of the religious and moral principles upholding the sanctity of human life. The suicide, as a rule, has rather concluded that he cannot adjust or readjust himself to conditions as they are and that, therefore, life is not worth living. The more he broods over the question the more lonely he feels and out of touch with reality. In other words, what a suicide is most in need of is human sympathy partly in agreement with his own viewpoint, but of an encouraging type to aid in bringing about a possible solution. As I have said before, persons accused of crime are most likely to commit suicide and do commit suicide in a considerable proportion of cases. I am firmly

convinced that in a vast majority of suicides, the underlying causative fact is some sort of delinquency, be it what it may, the consequences of which would spell disaster to the person concerned. Unfortunately in our modern life the loneliness of the individual is increasing and true sympathy is diminishing. Collectively we do more than ever for good causes but individually we do infinitely less than in former years. Suicides, to be prevented, must be individually dealt with, since every suicide represents a highly specialized problem affecting the person concerned. Patience and skill in this direction are rare. It is, however, encouraging to be able to point to the excellent results which have been achieved by the Save-a-Life League of New York and the Salvation Army. The Save-a-Life League considers possibly a thousand cases of would-be suicides a year and has a long record of life-saving results deserving of being better known and better encouraged, for there are countless cases of suicides of persons, representing by no means an undesirable social type, well worth the saving. There can be no more dreadful thought than that one has been even indirectly responsible for a suicide because of the lack of human sympathy or unwillingness to extend a helping hand. It is no light thing that in this country of ours, overflowing with prosperity and happiness, there should be more than 37,000 persons a year contemplating suicide and that about one-half of this number should be successful. The more seriously the question is considered the better. No hard views on life and its opportunities, no unfeeling response to an appeal to the emotions or the purse, are ever justified in cases where both the mind and morals are so seriously disturbed as to bring persons into the dangerous borderland of sanity and insanity. In the light of my own experience and the number of would-be suicides who are alive, I am satisfied that much indeed can be done in this direction. I also know in my own experience of an exceedingly valuable member of society whose life could have been saved if a substantial loan had been forthcoming to relieve his financial troubles.

As I have said before, in its last analysis suicide is a problem of disordered conduct and in this respect the chief burden rests upon the Church and the school, most of which have far from fulfilled their mission in a direction of character-molding towards a type strong and resistant to meet the problems of life as they arise. Whatever hope there may be for a reduction of the suicide rate rests, therefore, in my judgment, largely upon the two greatest educational agencies, the Church and the school, which can do much, if not most, in this direction. But to be successful they must aim deliberately at a type of character largely divorced from wealth-gathering and wealth-spending as the chief pursuit of a normal life. We can only hope to strengthen character by creating aims and ideals of a higher type in the young and a strong sense of individual and collective duty which shall withstand the temptation to evade life's responsibilities, be they what they may. It is no light thing to conceive of the long stream of human failures under present day conditions who find the only solution of their problems in self-destruction.

The tragedy of the suicide stream from year to year is appalling. It may be slightly lessening in proportion to the population, but the actual number of suicides throughout the country keeps on increasing. The

drift of it all is largely a matter of conjecture. In the historical retrospect, I have given pertinent illustrations for a century or more to show the rise and the fall that has arisen in the suicide curve to emphasize the conclusion that even a substantial decline in the rate at one period gives no assurance of a permanent reduction. It would be interesting, of course, to know accurately the suicide rate of long ago. Unfortunately the data that are available are only fragmentary and far from accurate. The longest series of suicides of which I have record for English speaking countries is derived from "Bills of Mortality" of the metropolitan area of London, beginning with 1630 and ending with 1832. Passing over incomplete years, I give rates by ten-year periods beginning with 1650, as an interesting matter of record.

Suicides in London, Metropolitan Area, 1650-1829—Rates per 100,000

	Suicide	Rate		Suicide	Rate		Suicide	Rate
1650-1659	138	2.5	1710-1719	291	4.3	1770-1779	339	4.9
1660-1669	154	2.6	1720-1729	488	7.2	1780-1789	244	3.5
1670-1679	184	3.1	1730-1739	508	7.5	1790-1799	274	3.0
1680-1689	172	2.8	1740-1749	421	6.2	1800-1809	357	3.6
1690-1699	208	3.3	1750-1759	363	5.3	1810-1819	372	3.1
1700-1709	306	4.5	1760-1769	353	5.2	1820-1829	388	2.5

The foregoing data have been derived from a volume on the "Bills of Mortality of the Metropolis" by J. Marshall, Esq., published in London in 1832. I have assumed the population to be that enumerated by Marshall for the City of London, its parishes, and adjacent areas added to the city from period to period. Approximately, I am sure that the population estimates are correct. The whole tabulation by causes of death gives 5,815 suicides with the returns of the period 1637-1646 missing. The largest number of suicides during any one year was 67 in 1736. During recent years the suicide rate of England and Wales has averaged 9.5 per 100,000, which is not much higher than the average rate for the decade 1730-1739 given as 7.5 in the preceding table.*

The United States rate is now about 12 per 100,000, but it has been as high as 17.8 during 1908. In the light of the historical retrospect, it would be unsafe to assume that the rate may not in time revert to earlier and more excessive figures. But the evidence seems quite conclusive from this and other sources that suicide at the present time is much higher than two or three hundred years ago. The prevailing prosperity unquestionably has a certain measure of influence which cannot, however, be looked upon as permanent. A decided reduction in the suicide rate can only be brought about by deliberate and continuous methods to effectively reach those who are on the borderland of mental disease and hopeless despair. No such effort on a concentrated and substantial scale is being made, however urgently needed. In no direction could organized society exert itself to better advantage than to erect a monument more to its glory than in this. Such an effort would emphasize the spirit of true humanity and altruism both individually and collectively exerted

* Tönnies in a recent dissertation on Suicide in the province of Schleswig Holstein in the North of Germany calculates that suicide in that province has increased from a rate of about 7.5 per 100,000 during the first quarter of the 19th century to 28 at the present time.

to hold out the hand of hope and relief to those who are on the verge of self-destruction. For a large proportion of suicides suffer from the result of a confused state of mind for which society by its follies, foibles and vices, as well as through a misdirected education, is largely responsible. Much can be done to save a substantial number of unfortunates from self-destruction if such an effort would rest upon sound principles of Christian ethics, a broad and genuine sympathy, and a spirit of self-sacrifice. Aside from the deserving who contemplate suicide, there remains a hopeless criminal and semi-criminal element which finds in suicide the only means of escaping from the consequences of wrongful action, for which Society must for its own self-protection exact a penalty. A reduction in the suicide rate of this element can only be brought about when education and religion are more concerned with conduct and character instead of being satisfied with an outward conformity of manners and morals, which fail to stand the test in hours of temptation. Progress in civilization may approximately be measured by the degree to which both murder and self-murder are viewed with abhorrence and reduced in frequency in consequence of methods and means deliberately and unceasingly aiming at this end.

I have on purpose avoided the use of names in my references to particular cases, since on general principles the less said the better, but it is difficult to avoid the use of names entirely, particularly of well-known persons whose self-inflicted deaths must be looked upon as a lesson and a warning.

From a large mass of data I have selected a few in conclusion to visualize the truth that suicide spares no class or condition of life. The first case which I have in mind is that of the daughter of a former governor of the Federal Reserve Board, Miss Harding, who ended her life in March, 1924. She had an unfortunate family history of tragedies, including the suicide of her mother and, I believe, the divorce of her sister. Much was published at the time regarding the reasons for the suicide of this young woman, but most of it was blind conjecture. It was apparently a case of disappointment in love, exaggerated by a brooding temperament, a heritage from the past. If those who commit suicide could only realize that they leave a stain upon the family record which is one of the last to be wiped out by time-healing wounds!

There is another aspect to the Harding suicide summarized in a news dispatch reporting some remarks of her father and to the effect that "Late hours, the constant rush day and night, overtaxed her frail strength. Had she had a mother, the first danger signals of ill health would have been noticed and she would have been more carefully guarded. But being on her own, she kept on going until at last she was a complete wreck."

The second illustration is the suicide of Mr. William Madison Wood, one of New England's industrial leaders, an outstanding personality in the development of the woolen industry, a genius in his way, and at the time of his death one of the wealthiest men of Massachusetts. The rise of Mr. Wood from sordid poverty to enormous influence and power is one of the most illuminating biographical contributions of our time. Yet he ended his life with a self-inflicted bullet for reasons unknown. I knew Mr. Wood but slightly, and always looked upon him as a man

of high ideals but isolated from the lives of his fellow men by too much self-confidence and too little trust in others. The true tragedy of his life was never revealed.

The most tragic suicide in my own experience was that of Dr. Eugene R. Kelly, State Health Officer of Massachusetts. I knew Dr. Kelly for more than twenty years and I have never known a finer type of man or mind concentrated to public purposes. He was a lovable personality, and I never recall hearing any one saying an ill word against him. He was exceedingly energetic, with considerable driving powers, yet not over self-assertive nor over self-confident. He was only forty-two years of age at the time of his death, but he had attained to the rank of possibly the ablest health administrator in the country. The tragedy of his life was also hidden in a mass of confusing guesses and conjectures, but he seemed to me to be about the last person I knew who would end his own existence as he did.

Pathetic in the extreme is the suicide of Marcelline, the famous clown, of whom the *Bingham Press* appropriately said at the time of his death that while "he made millions happy, there was not one to make this clown's way smoother or soothe his aching heart." In the words of the New Orleans *Tribune,* he realized the bitterness of the truth that "a clown who stops clowning has few friends left." Equally suggestive is the conclusion of the Worcester *Telegram,* that "the man who relies upon public acclaim alone for his welfare is in great peril." When reputation for fame vanishes there comes a feeling of isolation and uselessness that makes self-inflicted death seem a relief.

These and countless other cases emphasize the true nature of the suicide problem as one which goes to the very root of our conduct and character, of our aims and ideals, possibly largely at variance with the conditions under which the economic struggle for existence must be carried on.

Summary of Conclusions.

1. The suicide problem challenges the civilization upon which in a large measure rests the responsibility for the countless failures of persons more or less unable to adjust themselves to the existing order or to escape its rigorous consequences in cases of delinquency to the extent of serious crimes.

2. Suicide during the last ten years or more has shown a tendency in this country to occur at a somewhat lower rate of frequency in proportion to population than previous to the World War. This is in part to be attributed to the more widely diffused prosperity, to diminished unemployment and greater opportunities for readjustment and rehabilitation in cases of failure or distress.

3. Regardless of the observed decrease in the suicide rate the problem remains one of prodigious extent, causing approximately 15,000 self inflicted deaths during the course of a year, aside from an equal and possibly much larger number of attempts at self destruction in which the effort failed.

4. In most cases the person committing suicide is apparently sane and in reasonably full possession of his or her faculties. But in all such cases there is, as a rule, evidence of a considerable degree of mental disturbance and confusion as to rights and duties which are often in conflict with the existing order.

5. The underlying cause or condition which make for suicide in individual cases, as a rule, defy analysis or explanation. In a measurable proportion of cases the suicide is obviously mentally irresponsible and in a condition demanding restraint on the part of the State.

6. Borderland cases of sanity and insanity are much more common than is generally known. A large number of seemingly recovered patients are annually discharged from public institutions for the insane and they often become a menace to society and end their existence in suicide or crime. Greater caution in the discharge of apparently cured or recovered patients is urgently called for. Thus New York State Institutions for the Insane in 1926, for illustration, out of 9,423 admissions, released 1,771 as recovered. But in addition 942 were discharged as much improved, 1,017 as improved, 718 as unimproved and 78 as not insane. Thus a total of 4,526 persons were discharged in a single year in the Empire State who had suffered from some form or other of mental diseases or breakdown, suggestive in many cases of a future recurrence with possibly disastrous results to the patient, to others or both.

7. Suicide to an increasing extent seems to take the form of homicidal mania and often another person or several are killed before the suicide ends his or her own existence. In a number of such cases the suicide had previously been under restraint in a public or private institution for the mentally unsound.

8. A most important and much neglected phase of the suicide problem is the greater tendency on the part of persons accused of crime or while confined in prison anticipating sentence to commit suicide. Prison authorities are often grossly neglectful in such cases. Quite recently a man tried seven times for murder upon appeal, but always found guilty and sentenced to death, ended his life by hanging, while anticipating capital punishment. Suicides are common among prisoners, even though on trial for only comparatively minor offences.

9. Suicides are less common among women than among men and the sex ratio seems to remain about the same. In 1924 in the United States registration area, there occurred 8,118 suicides of white males against 2,643 suicides among white females or at a ratio of three to one. During the same year, there occurred 282 suicides of colored males against 103 of colored females or at the ratio of 2.7 to 1. This phase of the question has not, however, been as thoroughly investigated as would be desirable.

10. In the registration area, out of 12,001 suicides at all ages during 1924, the age groups were distributed as follows: At ages 10-14 there were 39 suicides; at ages 15-19, 357, and at ages 20-24, 774, so that over 1,000 self inflicted deaths occurred among the young, chiefly of

school and student or the adolescent period of life. At ages 25-44, or during the most active period, there were 4,451 suicides and at ages 45-64 about the same or 4,641. At ages 65 and over there were 669 suicides, it being unfortunately impossible to carry the analysis to the very end of life. But many individual cases are on record in which the very old have ended their existence even up to and slightly beyond the century mark. In most such cases, however, the suicide is complicated by illness or decrepitude.

11. There is no evidence of a very convincing nature that child or student suicides are on the increase, although some indications to this effect seem at times to be apparent. The evidence in such cases may occasionally be hidden in a modified death certificate but such instances would be rare. Modern education and the very stimulating effect of much vicious reading matter, aside from suggestive motion picture shows, no doubt have a bearing upon a measurable number of cases of suicide in early life. Such suicides appear to be, however, much more common in Continental Europe than in this country.*

12. Primitive man rarely ends his own existence, although cases are known to have occurred among practically all races. Suicides among slaves have not been uncommon. Suicides among the negro population of the United States are much less frequent in proportion to population than among the corresponding white element. Thus, for illustration, in the State of Georgia for the year 1924 the white suicide rate was 9.6, while that of the colored was 1.6. In Louisiana the white rate was 9.0 and the colored rate 2.7. In Mississippi the white rate was 4.8 and the colored rate 0.9. In South Carolina the white rate was 6.2 and the colored rate 0.5. For the registration states in 1924 the rate for the negro population was only 3.6 while the white rate for the same states was 13.0. There is no evidence that the negro suicide rate during recent years at least has increased.†

13. The Indian suicide rate in the registration states in 1924 was 14.2 against a white rate of 13.0, and a negro rate of 3.6. But this rate was abnormally high, for in 1923 the rate was only 6.1 while in 1922 it was 10.2 and during 1921, it was 12.1. It may, therefore, be safely assumed that the North American Indian has a suicide rate not very materially different from the rate prevailing among the white population and a decidedly higher rate than for the corresponding negro element.

14. The suicide rate varies widely in different countries and even for different sections of the same country. In the United States, suicide is now most common on the Pacific Coast, where San Diego and Los Angeles have particularly excessive rates. It is much lower in the New England States and also in the South. The suicide rate is always higher

* Under date of November 26, 1927, the *Associated Press* reports as follows: "Seated before a mirror and with a copy of Oscar Wilde's 'Dorian Gray' on his lap, Wolfram Weber, aged 24, the brilliant director of the City Theater at Insbruk, took poison and watched himself die. The book was opened at a page where suicide was being discussed."

† An excellent illustration of the rarity of suicide among primitive races is furnished by the official statistics for the city of Colombo, Ceylon, for the year 1926. In that year among a population of 260,000 there occurred 13 suicides or at the rate of only 5 per 100,000. Excluding 5 suicides in the European and mixed blood population the native rate is reduced to 3.3 per 100,000 of strictly native population.

in cities than in the rural sections. In 1924 the rate for cities in the registration states was 14.7 and for the rural portions it was 9.8. For the entire country the rate was 12.2. It was as high as 28.0 for California and as low as 4.1 for North Carolina. For Massachusetts the rate was 11.9 and for the State of New York 13.8, while San Francisco had a rate of 38.8, Boston had a rate of 14.6 and greater New York 14.3. The rate for Chicago was 15.3, while the rate for Philadelphia was the same. The influence of climate and season upon the suicide rate is traced with difficulty in the United States where it is rather affected by racial antecedents, religious beliefs and economic conditions.

15. Suicides in the United States are fairly well distributed throughout the year and no precise effect of weather conditions on the suicide rate is traceable with certainty. But the correct ascertainment of such a relation would require a most exhaustive study of detailed statistics which has not as yet been made. But finally the statistics from over one hundred cities apparently show that the rate month by month throughout the three year period was much the same. There are some reasons for believing that suicides are more common at and about Christmas time but this phase of the question has also not been studied as thoroughly as would be necessary.

16. International statistics of suicide cannot to advantage be presented in the form of a brief generalization. The country which has one of the highest rates in the world is the Free State of Saxony or 34.1 per 100,000 in 1924, which is in marked contrast to the extremely low rate for the Irish Free State or 3.0 during 1925. The International statistics, however, offer an exceedingly interesting field for investigation, tending to show that racial antecedents plus religious beliefs are among the fundamental governing conditions in a high or low suicide rate as the case may be.

17. Occupation in a general way does not appear to have a very convincing relation to the suicide rate except in the extremes. English statistics by professional and industrial groups show some exceedingly striking contrasts. The highest rate in the experience of England and Wales was met with among inn keepers and allied employments or 6.53 during the three-year period 1910-1912, per 10,000, at ages twenty-five and over. The lowest rate, omitting one unimportant exception, was experienced by clergymen or only 1.30. We have here then convincing evidence of the profound effect of the liquor trade on the one hand in stimulating the suicidal propensity and on the other, of religious convictions inhibiting a possible inclination to self murder.

18. Religious beliefs also bear directly upon the suicide rate as conclusively shown by the almost universally low rate observed in countries with a predominatingly Catholic population. The lowest rates on record are those of Mexico and the Irish Free State. While in the latter the rate is 3.0, in Northern Ireland which is predominatingly Protestant the rate is 6.0 in 1925. In former years it was generally held and perhaps rightly so that suicide was rare among Jews, but if recent statistics of Prussia can serve as a guide, they seem to show that the suicide rate

among Jews is as high, if not higher, than among the corresponding group of Protestant confession. The Catholic Church unconditionally condemns suicide as a mortal sin for which there is no forgiveness but the Protestant Church takes a more tolerant view, if it does not in a general way, ignore the sinfulness implied in every act of self destruction.

19. The predominating method of suicide among men in this country is by firearms. Among women, it is poisoning. In the registration states, out of 8,818 white male suicides, 3,623 were by firearms. Out of 2,643 suicides of white women, 262 were by poison, 531 were by corrosive substances and 551 by poison gas. The unrestricted sale of firearms is unquestionably in many cases a direct inducement to self-murder. Like consideration applies to the ease with which it is possible to obtain poisonous substances. During recent years suicides by jumping from high places have increased. Tall buildings or monuments, etc., are questionably a strong temptation, and are, as a rule, ineffectively guarded against unhappy occurrences. During 1924 in the registration states about 300 suicides were committed by this means. It would make an interesting contribution to knowledge if the changes in suicidal methods during a long period of years were carefully studied. Much might be learned that would be of value in developing effective preventive methods.

20. Life insurance in its relation to suicide does not appear to have a pronounced or determinable effect on the general rate. Considering the enormous growth of life insurance during recent years, it is certainly significant that during this period the suicide rate should have measurably declined. The few cases which occasionally are reported in which life insurance was alleged to have been a contributory factor, may be looked upon as rare exceptions. Life insurance is merely a new method of accumulating property. Suicide occurs among the very wealthy who can look with complacency upon the final provision which has been made for dependent survivors. In the same sense, of course, a disordered mind may look upon life insurance protection. In any event, it is highly significant and conclusive that the vast growth of life insurance which now amounts to practically a universal provident institution should have coincided with the observed decline in the suicide rate during recent years. The general rule everywhere, however, is to bar the payment of suicide claims in the event that death from suicide occurred during the first one or two policy years. In that event the premiums are returned.*

21. Sordid poverty and unemployment are relatively frequent causes of suicide, though happily not as common now as in former years, particularly during periods of industrial depression. Nothing can be more lamentable than the waste of useful human lives terminated because of a seemingly hopeless outlook, easily changed by a more wholesome spirit of humanity and cooperation. No fault can be found with the pardonable spirit of pride which precludes many such persons from seek-

* It requires only to be pointed out that the total number of life insurance policies in the United States between 1920 and the end of 1926 has increased from 75,000,000 to 107,000,000, while the amount of insurance in force has increased from $51,000,000,000 to $91,000,000,000.

ing aid often obtainable only under humiliating conditions. The prevention of such suicides is not so much a community matter as one of individual concern. Suicides are a matter of record in which persons were brutally refused opportunities for work or declined employment on account of advanced age where some compromise might easily have been arrived at. Quite recently a woman ended her life and the lives of her four children by turning on the gas because she had reached the last stage of a hopeless struggle against poverty and gainful employment. She was a mother and a worthy member of the community. That such cases should occur in this country under conditions of extraordinary prosperity is a further indictment of the many failures of our so-called civilization.

22. The prevention of suicide is a matter to which many thoughtful persons have given extended attention. The Salvation Army was one of the first to develop special offices for the purpose of dealing with persons contemplating suicide. The Save-A-Life League of New York City has likewise been quite active and successful in this direction. The difficulty of the situation is the highly individual aspect of the problem which must be dealt with by a person of unusual sympathy and common sense. The intending suicide needs advice on a wide range of questions, upon which few are competent to essay to advantage. He some times needs financial support which is generally not forthcoming. But the prevention of suicide is an imperative duty of both the Church and the State, aside from any individual who is aware of a dangerous condition of mind in a person possibly on the borderland. There is, unfortunately the almost universal habit of taking threats of suicide lightly. In countless cases of suicide, if such threats had been taken seriously, a life might have been saved. In the City of Chicago during the six years ending with 1926, according to the Police Reports, there were 3,947 unsuccessful attempts at suicide, while 2,609 were successful, ending in death. There were thus 6,556 persons of suicidal determination in the City of Chicago of which, as stated before, 2,609 or 39.8% were successful. If these figures can be relied upon as applicable to the problem at large, then the 15,000 suicide deaths represent annually approximately 37,700 persons with suicidal intent, who require to be dealt with much more sympathetically than is generally the case. They are always in an unhappy frame of mind which cannot be disposed of by harshness or ridicule. In a vast number of cases, the suicide is otherwise perfectly normal and often a very useful citizen. Modern life tends to become more and more complex and confused, making it difficult for large numbers to find the place most suitable for their talent, inclination and needs. It is no light thing that some 15,000 lives a year should end in self destruction. But little progress will be made in the direction of a deliberate reduction until the whole problem is more thoroughly understood and until the facts of the situation are taken to heart.*

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* The extreme complexity of the suicide problem is best emphasized in a treatise in the German language on "Suicide Suspicion and Suicide Prevention," by Dr. Placzek of Berlin, published in Leipzig, 1915. It is a most admirable analysis of many obscure phases of the suicide problem, based upon a large neurological experience. It would serve a very useful purpose if this admirable publication were translated into the English language.

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SUICIDES AND MODERN CIVILIZATION.

"If we read of one man robbed or murdered or killed by accident, or one house burned, or one vessel wrecked, we need never read of another. One is enough. If you are acquainted with the principle, what do you care for a myriad of instances and applications?"

Thus reasons Thoreau in his "Walden," as if the knowledge of a single fact were sufficient to reveal to us the underlying principle. Much to the contrary, the collection and study of a large body of facts of the same order form one of the most important and useful branches of social science, without which it would be impossible for us to have intelligent conceptions of the world we live in.

A single case of murder brought to light would never have led to the establishment of a criminal code, nor would the mere knowledge of a single shipwreck have caused the inauguration of the life-saving service. It is the multitude of facts of the same kind that impress us with their importance, and, in the language of Herschell, "statistics present themselves to us as the basis of social and political dynamics and as the only solid ground on which the truth or falsity of historical or psychological theories can be proved."

A single case of suicide, met with in the news columns of a daily paper, causes rarely so much as a thought of pity or regret; for so accustomed have we become to the sensational and horrible that we pass, even over exceptional cases, with only a sigh; and it is not until the facts are brought before us in their totality and compared with other related phenomena that the seriousness and importance of a subject are brought clearly before our mind. To do this and to present, for the first time, I believe, the statistics of suicide for American states and cities, as far as obtainable, is the object of the present paper.

Excepting Dr. Davis Dewey's essay on "Suicide in New England,"* I am not aware of any attempt having been made towards a presentation of suicide in the various states and cities of the Union, papers on the subject being usually confined to either statistics of suicide in Europe or to a reiteration of the facts in well-known cases of suicide of ancient or modern times, presenting disconnected views of the subject, but no intelligent picture of the full extent of the evil, especially as it prevails in the United States.

Statistics of suicide are obtainable for only a very few of the forty-four states of the Union, but for nearly all of the large cities. Only those states have been included in Table No. I. which possess records for at least twenty years, or four quinquennial periods. The following table presents the statistics of suicide for twenty-five years for four New England States, and for twenty years for one Western state. The data have in all cases been taken from the official records of the registration bureaus, and will not fall much below the actual truth. In Massachusetts, where a board of medical examiners makes rigid inquiry into every

* "Journal of American Statistical Association," vol. viii., p. 158.

case of death by violence, the difference between the registration returns and the returns of the board amounts to about eight per cent. It must therefore be borne in mind that the actual truth is *above,* rather than below, the reported returns.

TABLE I.—*Suicides in Five American States, 1866-1890.*

	Massachusetts		Vermont		Rhode Island		Connecticut		Michigan	
	Total	Average for Five Years	Total	Average for Five Years	Total	Average for Five Years	Total	Average for Five Years	Total	Average for Five Years
1866	73		20		11		39			
67	75		24		15		25			
68	88		27		18		20			
69	92		30		15		29			
1870	91	83.8	23	24.8	27	17.2	27	28.0		
71	122		30		19		43		40	
72	117		25		18		36		35	
73	117		27		8		24		39	
74	115		16		18		32		53	
1875	159	126.0	27	25.0	26	17.8	51	37.2	52	43.8
76	119		31		18		39		54	
77	163		32		22		52		66	
78	126		30		21		58		63	
79	161		27		13		66		59	
1880	133	140.0	30	30.0	10	16.8	48	52.6	65	61.4
81	165		30		23		69		57	
82	162		25		31		65		62	
83	167		23		25		60		91	
84	184		28		22		65		104	
1885	176	170.8	38	28.8	20	24.2	81	68.0	91	81.0
86	149		37		17		82		82	
87	165		25		16		92		105	
88	164		33		21		95		101	
89	175		22		24		80		94	
1890	180	166.0	32	30.1	19	19.4	93	88.4	108	98.0

It would be interesting if we could bring into comparison the returns for New England with those of other sections of the country, especially the South and West; but in the present undeveloped stage of vital statistics in the majority of states, this is impossible. Attempts have been made in that direction in the mortality volumes of the Census of 1870 and 1880, but the results are unsatisfactory, and always will be so until every state and county has a board of health and a bureau of registration.

As will be seen by the table, the returns show a steady and gradual increase in the number of suicides during the last twenty or twenty-five years, which is brought out the more clearly when we compare the returns for one quinquennial period with those of the following. That this increase has not only been absolute in numbers, but also out of proportion to the general increase in the total mortality and population, will be seen at a glance on examination of the next table, which I regret not having been able to make more complete.

TABLE II.—*Mortality and Suicide by Five-Year Periods for Four States.*

	Massachusetts.			Rhode Island.*			Connecticut.			Michigan.		
	Total Deaths.	Total Suicides.	Deaths to Suicides.	Total Deaths.	Total Suicides.	Deaths to Suicides.	Total Deaths.	Total Suicides.	Deaths to Suicides.	Total Deaths.	Total Suicides.	Deaths to Suicides.
1861-65	129,685	394	329									
1866-70	125,395	419	301	15,558	71	219	39,724	140	283			
1871-75	163,739	630	260	19,461	90	216	46,780	186	251	61,847	219	282
1876-80	162,924	702	232	21,796	100	218	49,037	263	186	68,770	307	242
1881-85	186,075	849	218	25,342	111	228	57,856	340	170	87,271	405	215
1886-90	205,409	907	226	30,431	98	311	63,175	442	143	101,390	490	207

The ratios in this table have been arrived at by dividing the total mortality of a given period of five years by the total number of suicides recorded during the corresponding period. Since the mortality is recorded annually, we have in the same a more accurate basis than in the decennial census enumeration, or the estimates of the population for intercensal years obtained by the customary formula for calculating the geometrical increase of the population. On examination of the Massachusetts returns, as shown in the first column of Table II., it will be found that there was one suicide to every three hundred and twenty-nine deaths during the first period (1861-1865), which ratio increased from period to period until 1881-1885; since then there has been a slight decline during the last period, due principally to the returns for 1886, when there were but one hundred and forty-nine suicides, to one hundred and seventy-six the year before and one hundred and sixty-five the year immediately following. The returns for the other states present similar conditions, excepting Rhode Island, where there have been but slight fluctuations in the annual and quinquennial returns.

To this exceptional condition prevailing in Rhode Island I shall have occasion to refer again further on. To make absolutely sure of the statement made in the beginning, that there has been an excessive increase in the number of suicides as compared with the increase in the total mortality, I have taken the returns of deaths and suicides for the first period for each state and compared the same with the last period; and as will be found in the percentages of the next table, the percentage of increase in suicides is always in excess of the gain in the total mortality. Rhode Island, to the contrary, shows an increase of nearly ninety-six per cent in total mortality against an increase of only thirty-eight per cent in the total number of suicides.

TABLE III.—*Percentages of Increase in Total Mortality and Suicides.*

	——First Period.——			——Second Period.——			Per cent of Increase in Mortality.	Per cent of Increase in Suicide.
		Total Deaths.	Suicide.		Total Deaths.	Suicide.		
Massachusetts..	1861-65	129,685	394	1886-90	205,409	907	50.6	130.0
Rhode Island....	1865-69	15,558	71	1885-89	30,431	98	95.6	38.0
Connecticut.....	1866-70	39,724	140	1886-90	63,175	442	59.0	216.0
Michigan.....	1871-75	61,847	219	1886-90	101,390	490	63.9	123.8

* Period 1865-1889.

It is not necessary for me to add any further comment on the last table, since the result is fully in agreement with those of the previous tables; and I shall now proceed to discuss the returns of suicides in the large cities, which furnish the most valuable records on the subject.

The fact is too well known to need reiteration here, that since the beginning of the present century there has been a steady and most extraordinary increase in the population of the larger cities of the country—an increase out of all proportion to the total increase of the population at large. In 1790, when the first census was taken, only 3.35 per cent of the total population were living in cities of over eight thousand inhabitants, against 29.12 per cent in 1890. Out of a total population of about sixty-three millions, more than eighteen millions live in the larger cities.* In Massachusetts about 70 per cent of the entire population live in cities; in Connecticut, about 50 per cent, and in Rhode Island, nearly 79 per cent. Michigan, in 1890, had 26 per cent of urban population against 16.5 per cent in 1880.

The drift of the country population into the cities is most pronounced in the Eastern states, but the movement is taking place all over the country, from Maine to Oregon; in fact, all over the civilized world. To illustrate the importance of a study of this movement of population in connection with the study of moral statistics, especially those of suicide, I will briefly state the changes in population in the county of Berkshire of Massachusetts in connection with the statistics of suicide for the past thirty years. This county, in the extreme western part of the state, during the thirty-five years from 1855-90 gained 116 per cent in the population of three manufacturing cities, and suffered a decrease of 35 per cent in fifteen of its agricultural towns.† In 1855, according to the state census, 13,500 persons lived in these fifteen towns, decreasing to 8,726 to the year 1890. During the same period the population of the three manufacturing cities increased from 5,175 in 1855 to 11,177 in 1890. According to the last census,‡ out of a total of thirty-two towns in Berkshire County, twenty-four show a *decrease* in population, while only eight show an increase. This increase was largest in the manufacturing towns of Adams, North Adams, and Pittsfield.

If we now turn to the records of suicide returned for the same county for the same period, it will be found that a most extraordinary change has taken place. During the five years from 1865-70¶ there were only seven suicides recorded, whereas, during the five years from 1886-90 forty persons committed self-murder in the same locality. During the ten years from 1870-80 there were thirty suicides, or a ratio of 2.7 per 1,000 deaths; while during the last decade the number increased to seventy-nine, or 5.9 per 1,000 deaths.§ In 1865 there was one suicide to every 56,944 inhabitants, against one to every 6,239 in 1890. These preliminary remarks will suffice to make clear the importance of the study of suicide in our large cities, the returns from sixteen of which I am able to present in the following table:

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* Census Bulletin 52.
† State Board of Agriculture Report, November 1891.
‡ Census Bulletin 24.
¶ I do not possess the earlier records.
§ Registration Report, 1890, pp. 379-80.

TABLE IV.—*Suicide in Sixteen American Cities.*

CITY.	Population, 1890.	Mortality, 1890.	Suicides, 1890.	Deaths to One Suicide.	Inhabitants to One Suicide.
San Francisco, Cal.	298,997	5,378	79	68	3,784
St. Louis, Mo.	451,770	8,681	98	88.5	4,610
* Chicago, Ill.	1,099,850	21,856	206	106	5,339
Cincinnati, O.	296,908	6,441	53	121.1	5,602
† Washington, D. C.	230,392	2,934	21	139.7	7,366
Cleveland, O.	261,353	5,058	32	158	8,167
Newark, N. J.	181,830	4,629	29	159.6	6,270
New York, N. Y.	1,515,301	40,103	239	167.8	6,340
Detroit, Mich.	205,876	4,037	21	192.2	9,803
* † New Orleans, La.	242,039	6,075	30	202.5	5,912
Boston, Mass.	448,477	10,181	50	203.6	8,969
Brooklyn, N. Y.	806,343	19,827	94	210.9	8,578
Philadelphia, Penn.	1,046,964	21,732	80	271	13,087
Pittsburgh, Penn.	238,617	6,230	20	311.5	11,931
Baltimore, Md.	434,439	10,198	25	407.9	17,377
Providence, R. I.	132,146	2,877	6	479.5	22,024

In this table I have included the census returns of population for 1890, and given the ratio of suicides to population as well as to the total mortality. I have arranged the cities according to propensity to suicide, as shown by the ratios based on the total mortality; but as will be seen, there would be substantially the same result if I had chosen the other method.

In the aggregate the table presents a record of more than *one thousand* suicides in sixteen cities during a single year. If we were able to ascertain the number of those cases which fail to be recorded, as well as the number of attempts at suicide, the army of those who seek in suicide relief from earthly troubles would assume alarming proportions. In New York City two hundred and thirty-nine suicides were recorded during the year 1890, and in the sister city of the West over two hundred cases were registered the year before. For San Francisco we find a record of some ninety cases, which, based on the mortality, shows that there is one suicide to every sixty-eight deaths, the highest ratio on record for any American city.‡

St. Louis makes return of ninety-eight voluntary deaths, being one to every 88.5 of the total mortality, while for Washington, D. C., the ratio is one to 139.7, one of the highest on record, although in total numbers the returns fall considerably below those of other cities of equal size. Providence, R. I., occupies the last place in the table, having the lowest ratio of suicides to the population, as well as to mortality; yet Rhode Island is the most densely populated state of the Union, having an urban population of 78.89 per cent.

For the purpose of making more plain the frightful extent of what has been called a "social malady," I give a statement of the annual returns for twenty years for six of the larger cities of the country, presenting a total of over *seven thousand* cases. For New York City alone this total reaches the enormous number of three thousand five hundred

* Mortality and suicides for 1889.
† Mortality and suicides of white population only.
‡ Of these, ten were those of Mongolians.

and seventy for twenty years, being more than one-half of the total returns for the six cities embraced in the next table.

TABLE V.—*Suicides in Six Leading Cities for Twenty Years.*

Year.	New York.	Boston.	Providence.	Philadelphia.	Baltimore.	Cincinnati.
1871	114	26	9	41	6	18
72	144	29	7	48	9	26
73	118	32	4	47	24	25
74	180	25	10	59	20	31
75	155	45	12	68	21	34
76	150	37	10	60	15	34
77	148	39	12	59	19	37
78	142	34	7	40	21	45
79	117	36	6	51	15	37
80	152	40	2	68	18	35
81	166	42	14	62	23	41
82	199	38	12	77	30	46
83	161	42	15	95	26	39
84	229	46	11	89	20	46
85	207	41	6	78	28	44
86	223	42	7	90	31	46
87	235	51	7	88	43	33
88	247	37	9	94	35	52
89	244	42	10	104	32	40
90	239	50	6	80	25	53

Philadelphia returns some fourteen hundred cases, which form about one-fifth of the total; while for Providence the returns are less than two hundred, or about nine per annum for twenty years. By five-year periods, as shown in the following table, the alarming increase in suicide in our large cities becomes still more plain:

TABLE VI.—*Comparison of the Increase of the Total Mortality and Suicide by Five and Ten Year Periods.*

	—TOTAL SUICIDES.—				—DEATHS TO ONE SUICIDE.—				Per cent of Increase of Mortality, 1880-90, over 1870-80.	Per cent of Increase in Suicide, 1880-90, over 1870-80.
	1871-1875.	1876-1880.	1881-1885.	1886-1890.	1871-1875.	1876-1880.	1881-1885.	1886-1890.		
New York	711	709	962	1,188	208	201	188	165	29.8	52.1
Philadelphia	263	278	401	456	315	302	252	229	23.3	66.7
Boston	157	186	209	222	247	210	224	225	24.5	25.6
Baltimore	80	88	127	166	465	429	343	270	17.6	74.4
Cincinnati	134	188	216	224	197	135	141	138	16.9	36.6
Providence	42	37	58	39	202	268	192	334	31.4	22.8

We have here the suicides for four periods of five years each, and the ratios of the same to the total mortality for the same number of periods. They are in almost perfect agreement with the returns for the states, as shown in Table III., and, with the exception of Providence, show an increase in the number of suicides in excess of the proportionate increase in the general mortality. For New York City the increase in the total mortality during the second period of ten years, over the first decade, is equal to about thirty per cent against an increase of over fifty-two per

cent in the total number of suicides. For Philadelphia and Baltimore the increase has been still greater, being the highest for the latter city, where during the last five years the number of suicides has been double that of the first quinquennial period. . . . . Providence holds the same position as in previous tables. Many more deductions might be made from these tables, but I will leave that to those who wish to investigate the subject further.

While these tables are far from being complete presentations of statistics of suicide of the country, they are sufficient to show that the general law of suicide as laid down by Quetelet, Buckle, Morselli, and others, "that in a given state of society a given number of persons *must* put an end to their lives," applies to this country as well as to the states of Europe; and the question is natural as to what are the causes that bring about the voluntary destruction of thousands and tens of thousands of men and women who seek the ignoble grave of a *felo de se.*

In the plain but impressive language of statistics we have here before us a picture of the darkest side of modern life. Whatever the causes are that produce such frightful conditions, this much is certain, that something must be radically wrong in a society when thousands are *compelled* to put an end to their own existence. Is it the individual member or the social organism that is to blame?

Writers on the subject, from Quetelet to Morselli, show little agreement as to the probable causes of what Morselli calls a "social disease." Quetelet gives it as his opinion that "the offences of men are the result, not so much of their own vices, as of the state of society into which that individual is thrown."* Esquirol, Falret, Bourdin, Dr. Winslow, and others, hold that suicide is always evidence of insanity. Lecky, in his "European Morals," speaks of the idea of suicide in modern times as "being almost always found to have sprung, either from absolute insanity, from diseases which, though not amounting to insanity, are yet sufficient to discolor our judgment, or from that last excess of sorrow when resignation and hope are both extinct."† The majority of more recent writers on the subject, especially Dr. Morselli, hold "that just as madness may go on without any attempt at suicide, so the suicidal determination may be formed in the healthiest mind, which then carries it out with the coolness inspired by the most perfect logic."‡

Dr. Matthews expresses the opinion "that the most powerful influence leading to suicide is civilization," and "that self-killing is emphatically the crime of intellectual peoples." He adds further "that no act of a man's life can be shown to be more coolly and rationally planned than is generally the act of leaving it."¶

The writers on the subject may be divided into two classes—those who relieve the individual from all responsibility and consider him the unfortunate victim of a mad impulse, and those who, opposed to the idea of insanity, hold that suicide is the direct product of the will, coolly planned and carried into effect as a logical conclusion. A third class of writers,

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* Buckle, "Civilization in England," vol. i., p. 22.
† "European Morals," vol. ii., p. 63.
‡ Morselli, "Suicide," p. 272.
¶ *North American Review,* April, 1890.

according to circumstance, consider suicide either an act of madness or a crime.

In support of the theory of madness and its relation to self-murder, there is an imposing array of statistical evidence relating to the general increase in insanity all over the civilized world. While it is true that on this point as well opinions differ, the majority of well-informed and competent statisticians affirm that the increase in insanity is absolute as well as relative. A few instances will suffice to prove that there has been a considerable increase in insanity in this country as well as in Europe.

According to the last report of the Massachusetts Lunacy Commission, there were in 1870 in that state, supported in state institutions, 1,962 insane, or one to every 743 inhabitants. During the decade 1870-80 this number increased to 3,123, or one to every 570 of population, increasing during the following period of 4,653 in the year 1890, or one insane person to every 481 of total population.

The Irish census returns for 1891 show that while there was one insane to every 657 of population in 1851, one to every 328 in 1871, there was one to every 222 inhabitants in the census year 1891.

England and Wales in 1890 contained about 75,000 lunatics, against some 61,000 in 1880 and 38,000 in 1860.

New York state institutions in 1880 contained 4,211 insane persons, while in 1890 there were reported to be 7,505 of these unfortunates.* The four asylums in the state of Connecticut reported 715 inmates in 1881 against 1,501 in 1889.† Other states make similar returns, but are omitted for want of space.

If it be argued that these data may be defective or misleading on account of a more careful enumeration in recent years or a more extended use of state institutions, such objections can easily be silenced by an examination of the mortuary records showing deaths due to insanity. For this purpose I have compiled the following two tables, which show, first, the total mortality by five-year periods; second, the quinquennial number of deaths due to insanity, as well as the corresponding ratio for the same based on the total mortality; third, the returns and ratios for the suicides occurring during the same periods. The two most reliable sources of information have been selected, to secure the utmost accuracy in support of my statement.

TABLE VII.—*Comparison of the Increase in Deaths Due to Insanity and Suicide with the Increase in the Total Mortality.*

TABLE A.—MASSACHUSETTS, 1861-90.

Periods.	Total Mortality.	Deaths from Insanity.	Ratio to Mortality.	Deaths from Suicide.	Ratio to Mortality.
1861-65	129,685	329	395	394	329
1866-70	125,395	498	352	419	301
1871-75	163,739	498	329	630	260
1876-80	162,924	670	243	702	232
1881-85	186,075	819	227	849	218
1886-90	205,409	902	228	907	226

* Report, State Board of Charities, 1891. Royce, "Race Education," vol. i., p. 24.
† Census Bulletin, 62.

TABLE VII.—Concluded.

TABLE B.—NEW YORK CITY, 1866-90.

Periods.	Total Mortality.	Deaths from Insanity.	Ratio to Mortality.	Deaths from Suicide.	Ratio to Mortality.
1866-70	128,205	187	685	437	293
1871-75	148,143	280	529	711	208
1876-80	142,642	346	412	709	201
1881-85	181,275	569	318	962	189
1886-90	196,241	1,045	188	1,188	165

Whatever our opinion may be as regards the nature or causes of suicide, its intimate relation to madness cannot be denied. While it is very true that there are countries where there prevails a high rate of insanity with no corresponding propensity to suicide, like Ireland, for instance, it is equally true, and this statement is supported by fact, that wherever there is a high ratio of suicide there will be found an equal propensity toward madness. Morselli has shown, by a table compiled from the English registration returns of deaths due to suicide, apoplexy, paralysis, madness, epilepsy, and other cerebral diseases, that there is a close relation between suicide and the morbid conditions of the brain;* and we have ample material in this country to prove the assertion that not only suicide and insanity, but all the other various diseases of the brain, are on an increase out of all proportion to the general increase in the morbidity and mortality at large. The following table, compiled from the latest Massachusetts returns, will show at a glance the alarming and frightful increase in deaths due to brain disease as well as suicide:

TABLE VIII.—*Comparison of the Increase in Deaths Due to Brain Disease and Suicide with the Increase in the Total Mortality.*

MASSACHUSETTS, 1861-90.

Periods.	Total Mortality.	Deaths from Brain Disease.	Ratio to Mortality.	Deaths from Suicide.	Ratio to Mortality.
1861-65	129,685	8,468	15.3	394	329
1866-70	125,395	9,699	12.9	419	301
1871-75	163,739	13,057	12.5	630	260
1876-80	162,924	14,495	11.2	702	232
1881-85	186,075	17,873	10.4	849	218
1886-90	205,409	21,325	9.6	907	226

In proportion to the population, the number of suicides is exceedingly small, and would not deserve the import attached to its occurrence were it not that a study of related phenomena makes clear and indisputable the connection between suicide, madness, and crime. As it has well been said by the great Italian authority, "In proportion to the number of individuals who take part in the struggle for life, that of the suicides and mad is comparatively small; but it must not be forgotten that the greater part of the conquered pays a corresponding tribute to early death, indigence, emigration, to crime, prostitution, and to physical infirmities." A total of nine hundred and seven suicides for five years may seem a matter of small importance for a state like Massachusetts; but when we add the twenty-one thousand deaths due to brain disease, the matter changes into one of the most serious nature a society can have to concern itself about. There are no means by which we can state in figures the total

* Morselli, "Suicide," p. 293.

amount of misery and vice prevailing in a given community at any given period of time; but a careful study of statistics of marriage and divorce, illegitimacy and infantile mortality, pauperism and crime, foreclosure and evictions, drunkenness and arrest for vagrancy, will convince even the most pronounced optimist that the world of today is far from being what it ought to be, and, what is more, far from being what it *could be.* The forces that bring about conditions that, in the language of Carlyle, "neither heaven nor earth can justify," are the same and sole causes of suicide and madness.

The editor of *The Arena* has asked the question, "Are we really a prosperous people?" In the face of all the misery, vice, and want of modern life, may we not ask another question, "Are we really a happy people?" We have heard of late much about the danger of foreign influence, the pauper labor of Europe, the danger of immigration, etc.; it may interest some to compare the American statistics of suicide with those of some European states, for which purpose I have constructed the following table from the works of Morselli and Dr. Dewey. This table gives for a number of periods the suicides per million for nine European and four New England states.

TABLE IX.—*Comparison of the Increase in Suicides in Certain European States with Four New England States.*

	Ratio per million inhabitants.					
	1856-60.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.
*Europe.**						
Sweden	57	76	85	81		
Norway	94	85	76	73		
Denmark	276	288	277	258		
England	65	66	67	66		
Ireland		14	15	18		
Prussia	123	122	142	134		
Saxony	245	264	297	299		
France	110	124	135	150		
Italy		28	30	35		
America.†						
Massachusetts	79.9	62.9	60.6	80.0	81.1	90.9
Connecticut	60.6	45.9	54.6	66.2	86.6	103.3
Rhode Island	54.2	56.5	83.5	73.5	62.7	82.1
Vermont			76.2	74.9	90.4	86.7

While Morselli's table does not cover the entire period, Dr. Dewey's table extends from 1856 to 1885; and as will be seen on examination of the ratios, there has been a steady and gradual approach of suicides in this country towards the higher ratios prevailing in Europe. It will surprise many to find that suicides are more frequent today in New England than in the old England of only twenty years ago.

The study of statistics of suicide, madness, and crime is one of the utmost importance to any society when such abnormal conditions are on the increase. When such an increase has been proved to exist, it is the duty of society to leave nothing undone until the evil has been checked or been brought under control. That cannot be a healthy society, progressive and civilized, where there is a growing disregard for life and its duties. It is the *health* of the people that ought to come, and in a higher

* Morselli, "Suicide" (Am. ed.), p. 22.
† Dewey. Jour. Am. Statistical Asso., vol. viii, p. 163.

civilization *will come,* before the wealth of the people. If these statistics of suicide and madness prove anything, they prove beyond a doubt that somewhere our social organism is diseased, that something is wrong with our boasted civilization, which permits to exist, or directly causes to exist, conditions that annually drive thousands of men and women to self-murder or into the mad-house.

If it be true "that the things that are seen are of less importance than the things that are not seen," suicide furnishes an admirable illustration of the proverb. There is no malady of modern life that strikes more deeply into the very root of our civilization than self-murder, and a thorough inquiry into its nature and causes reveals the most serious defect of our so-called civilization.

If it be true, as Cardinal Gibbons asserts, "that the economic conditions of this country are fast approaching those of Europe,"* and further, as has been stated by another writer, "that what is called society in this country imitates to the extent of its ability English society, which gives every evidence of being the most corrupt on earth,"† it is an evil sign of the times when we find that suicide and madness are rapidly approaching European conditions—in fact, in many instances, already equal and even exceed them.

Civilization is defined by Matthew Arnold as "the humanization of man in society, the satisfaction for him in society of the true laws of human nature."‡

We must be far from being truly civilized as long as we permit to exist, or accept as inevitable, conditions which year after year drive an increasing army of unfortunates to madness, crime, or suicide. It is *not* civilization, but the want of it, that is the cause of such conditions. It is the diseased notion of modern life—almost equal to being a religious conviction—that material advancement and prosperity are the end, the aim, and general purpose of human life; that religion and morality, art and science, education and recreation, are all subordinate to one all-absorbing aim, the struggle for wealth. To this unhealthy condition of modern society is due the majority of cases of suicide, madness, and premature death. It is the struggle of the masses against the classes. The former fall victims in the struggle for life and for the absolute necessities; the latter fall victims to their own iniquity, responsible for their own as well as the miserable fate of their victims. It has been well said by Guizot "that society and civilization are still in their childhood; that what we have before us is incomparably, infinitely greater." At least, let us hope so; but in words equally true and prophetic, an American writer warns us "that false is the not overwise conclusion that uninterrupted progress of the race for all future time is a certainty." "It is not easy," adds Dr. Ely, "always to read aright the lessons of human history; but plain and clear and unquestioned do the annals of the past reveal a power which makes for righteousness, call it what we will, passes judgment on the nations of the earth, and *dooms those to decay and destruction which have ceased to help onward the growth of mankind."*¶—*The Arena,* May, 1893.

* *North American Review,* April, 1890.
† "An Ounce of Prevention," by Jacobus.
‡ "Civilization in America."
¶ "Labor Movement in America," pp. 292, 293.

THE SEX RELATION IN SUICIDE.

Some years ago I commenced the collection of statistics of suicide, for several states and cities of this country, for the purpose of an article to be published in the *Arena*.* Among the tables which I compiled at the time were several which could not be made use of in the paper as subsequently published. The most important of these were those relating to the proportion of the sexes, which are given below for the purpose of placing at the command of the student and writer on moral statistics the facts as they pertain to certain states and cities of this country. As is well known, there are only a few states of the forty-four which comprise this nation that maintain efficient bureaus of registration. Only those which publish the most trustworthy statistics have been included in the following tables. Most of our large cities, through their Health Department, collect and publish vital statistics, but many do not distinguish the sex of decedents, and these of course have had to be left out of the collection of ratios in the tables below. Among those which publish valuable statistics without stating the sex of decedents may be mentioned the city of Chicago, from which city I have returns for the period 1881-93, with an aggregate total of 2,026 cases. It is very unfortunate that this should be the case. The first table presents the returns for eight American states, with an aggregate total of nearly 10,000 cases. I give in each instance, first, the period for which the total number is reported; second, the aggregate total of cases; third, the number of men; fourth, the number of women; fifth, the ratio of men to total suicides, and, finally, the ratio of women to suicides. Unless otherwise stated, when reference is made to sex relation in the aggregate total, the proportion of women to the total number is referred to.

TABLE I.—*Sex Relation in Suicide in Eight American States.*

States.	Period of Years.	Total Suicides.	Males.	Females.	Per Cent Males.	Per Cent Females.
Massachusetts	1851-92	5,141	3,977	1,164	77.4	22.6
Vermont	1866-92	737	555	182	75.3	24.7
Rhode Island	1865-92	548	422	126	77.0	23.0
Connecticut	1886-92	631	525	106	83.2	16.8
New Hampshire	1886-91	202	162	40	80.2	19.8
Michigan	1876-91	1,280	980	300	76.6	23.4
Minnesota	1888-90	358	288	70	80.0	20.0
California	1885-92	1,011	858	153	84.9	15.1
Total		9,908	7,767	2,141	78.4	21.6

According to this table 21.6 per cent of all suicides reported were women. The highest ratio recorded is for Vermont, and the lowest for California. In view of the fact that Vermont is a strictly rural state, it will be difficult to explain the high rate of female suicides for that state, on the almost universally accepted theory that density of population and the presence of large cities are conducive to bring about an equality between the sexes in suicide and crime.† Rhode Island is the most densely populated state in the Union (318.44 per square mile), yet the

* Suicide and Modern Civilization, *Arena*, Boston, May, 1893.
† O'Dea, Suicide, p. 152.

proportion of female suicides is several per cent below that of Vermont. Massachusetts stands next to Rhode Island, with a density of 278.48 per square mile, yet the proportion of female suicides is only 22.6, while rural Vermont and Michigan, with a density of only 36.39 and 36.46 per square mile, respectively, show a higher rate than either Massachusetts and Rhode Island. As regards the influence of the proportion of the sexes in the general population, both Vermont and Michigan contain proportionally less women than men, while in Massachusetts and Rhode Island the females exceed the males by several per cent. To be exact, the proportion of women to 100,000 men is as follows: Vermont, 96,320; Michigan, 91,787; Massachusetts, 105,840; and Rhode Island, 105,628. If, therefore, the actual number were based on the respective population the result would be still more unfavorable to the two rural states.

The next table contains the returns for 23 representative American cities, with an aggregate total of 10,138 cases.

TABLE II.—*Suicides According to Sex in 23 American Cities.*

Cities.	Period of Years.	Total Suicides.	Males.	Females.	Per Cent Males.	Per Cent Females.
New York, N. Y.	1869-91	4,073	3,239	834	79.5	20.5
Philadelphia, Pa.	1866-92	1,786	1,455	331	81.4	18.6
Brooklyn, N. Y.	1889-92	338	262	76	77.5	22.5
St. Louis, Mo.	1887-92	583	447	136	76.6	23.4
Boston, Mass.	1871-93	974	760	214	78.0	22.0
Baltimore, Md.	1875-92	489	399	90	81.5	18.5
San Francisco, Cal.	1881-93	618	548	70	88.7	11.3
Cincinnati, O.	1890-92	159	122	37	76.7	23.3
Cleveland, O.	1891-93	102	78	24	76.4	23.6
Buffalo, N. Y.	1886	12	9	3	75.0	25.0
Pittsburgh, Pa.	1890-92	64	50	14	78.1	21.9
Washington, D. C.	1876-92	255	208	47	81.6	18.4
Newark, N. J.	1888-89	52	40	12	76.9	23.1
Hudson Co., N. J.	1885-87	78	65	13	83.3	16.7
Providence, R. I.	1856-92	276	207	69	75.0	25.0
Richmond, Va.	1889-93	14	11	3	78.5	21.5
New Haven, Conn.	1880-92	103	79	24	76.7	23.3
Lowell, Mass.	1888-89	14	11	3	78.5	21.5
Dayton, O.	1876-92	64	51	13	79.6	20.4
Reading, Pa.	1891-93	18	14	4	77.7	22.3
Lynn, Mass.	1889-91	8	6	2	75.0	25.0
Hartford, Conn.	1890-93	25	20	5	80.0	20.0
San Antonio, Tex.	1889-92	33	26	7	78.7	21.3
Total		10,138	8,107	2,031	80.0	20.0

The highest ratios reported are for Providence, R. I., Buffalo, N. Y., and Lynn, Mass. The lowest ratio reported is for San Francisco, Cal. The ratio for Providence is slightly above that for the state of Rhode Island, while the low rate for San Francisco is in harmony with the low rate for the state of California. It is somewhat curious that the three cities, Baltimore, Philadelphia, and Washington, should show such a similarity in their proportion of female to total suicides. Out of the total of 23 cities only five show ratios below 20 per cent, while in no instance is a higher rate than 25 per cent reported. The average ratio for all cities is 20 per cent, a ratio, however, which is strongly affected by the long period for New York City and Philadelphia and Providence, and the short period for the other 20 cities. In most cases the female popula-

tion of our large cities exceed the male population by several per cent, which, as in the case of Rhode Island and Massachusetts, would make the actual ratio still lower for women and higher for men. I have attempted to present as complete a return as possible, but, due to the fact that many cities issue reports which could not be utilized, and, further, that for many cities the returns for long periods could not be obtained, I have not been able to make this table as complete as desirable.

For the purpose of comparison with European data, I have compiled from the work of Morselli the following table:

TABLE III.—*The Sex Relation in Suicide in European States (After Morselli).*

States.	Period of Years.	Total Suicides.	Males.	Females.	Per Cent Males.	Per Cent Females.
Sweden	1831-74	10,677	8,407	2,270	78.7	21.3
Norway	1856-73	2,475	1,892	583	76.4	23.6
Denmark	1845-76	10,397	7,908	2,489	76.1	23.9
England and Wales	1863-90	51,186	38,133	13,053	74.5	25.5
Belgium	1836-76	5,722	4,702	1,020	82.2	17.8
Prussia	1816-76	114,364	92,970	21,394	81.3	18.7
Bavaria	1866-76	4,912	3,947	965	80.4	19.6
Saxony	1847-76	17,677	14,901	3,586	79.7	20.3
France	1836-76	140,180	108,066	32,114	77.1	22.9
Austria	1851-77	16,560	13,607	2,953	82.2	17.8
Italy	1864-77	11,671	9,319	2,352	79.8	20.2
Total		406,657	318,430	88,227	78.4	21.6

which gives the proportion of the sexes in suicide for 11 European states.* Some additions have been made in the case of England and Wales, which bring the returns for that country down to 1890.

The returns are for 11 European states, with an aggregate total of over 406,000 cases, of which 21.6 per cent were women. I know of no instance in which the so-called "law of large numbers" has a more complete justification than in this remarkable instance. From a comparison of the sex relation in the 10,138 cases of eight American states with the 406,657 cases of suicide in Europe, the percentage of females for both sections of the world is exactly the same, namely, 21.6 per cent.

To complete my statement of sex relation to suicide I will add a table for Canada and Australia, with a total of some 1,200 cases for only short periods of time. The data have been obtained from the Census of Canada, the Report of the Registrar-General for the Province of Ontario, the Statistical Register of New South Wales for 1892, and the Statistics of Tasmania for 1892.

TABLE IV.—*Sex Relation in Suicide in Canada and Australia.*

	Period of Years.	Total Suicides.	Males.	Females.	Per Cent Males.	Per Cent Females.
Province of Ontario	1888-90	179	140	39	78.2	21.8
Province of Quebec†	1890	16	14	2	87.5	12.5
Colony of New South Wales‡	1883-92	1,054	870	184	82.5	17.5
Tasmania¶	1892	59	54	5	91.5	8.5

* Morselli, Suicide, p. 196. English edition.
† Census of Canada, 1891, Vol. II, p. 132.
‡ Statistical Register for New South Wales, 1894, p. 557.
¶ Statistics of Tasmania, 1892.

The ratio for Ontario shows a close correspondence to the ratio for Massachusetts, while the low ratio of Quebec must be accounted for as being due to the predominating Catholic element of the population.* The low ratio for New South Wales corresponds to the ratio for California, and in part can be accounted for as being due to an excess of males and a large Chinese element of the population, aside from local economic causes, to which in part is due the high rate of suicide prevailing in California and Australia.†

The data thus far presented bear out the well-known and often-repeated law, "that in all civilized countries the proportion of the sexes in suicide is as one woman to three or four men." "It is true," as Morselli adds, "in some statistical series a return, sometimes large, sometimes smaller, is obtained, but the divergence is hardly of one and at the most of two units beyond these limitations."‡ The tables for the American states and cities verify the figures and assertions of Morselli, and it only remains for me to add a few statistics of the sex relation according to certain periods in reply to the open question whether suicide has increased in recent years more among the members of one than among the members of the other sex.

Mr. Havelock Ellis, in his recent work on "Man and Woman," has called attention to the fact that in most countries there appears to be a tendency for the proportion of female suicides to decrease, or, as he explains it, "one should rather say women have taken a smaller share than men in the modern development of suicide."¶ The statistics presented in the two tables below would appear on the whole to support this tendency, noted by Legoyt, Morselli, Ellis, and others. The first table shows the sex proportion for five American states and England and Wales for a number of five-year periods. Most of the ratios for New England states have been compiled from Dr. D. R. Dewey's article on "Suicide in New England."§

TABLE V.—*Showing the Relative Proportion of Female Suicide by Quinquennial Periods.*

States.	1851-55.	1856-60.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.	1886-90.
Massachusetts	29.6	24.2	25.2	23.0	21.0	18.3	22.8	21.8
Rhode Island	.....	.....	.....	24.5	31.5	26.2	20.2	9.7
Vermont	.....	.....	.....	19.4	21.6	26.7	28.5	27.2
Connecticut**	.....	.....	.....	.....	.....	26.1	.....	17.6
Michigan	.....	.....	.....	.....	.....	26.7	21.5	20.6
England and Wales††	.....	28.2	26.7	25.8	25.9	24.9	25.0	24.0

* According to the last census the Roman Catholic element formed 87 per cent of the total population.

† In New South Wales the proportion of the sexes in the aggregate population is 54.34 per cent males to 45.66 per cent females.

‡ Morselli, Suicide, p. 189.

¶ Man and Woman, by Havelock Ellis, p. 331.

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** For 1878-84 and 1886-91.

†† For 1858-60, 1863-67, 1868-71, 1872-76 (after Morselli).

TABLE VI.—*Showing the Sex Proportion in Suicide by Five-Year Periods for American Cities.*

City.	1871-75.	1876-80.	1881-85.	1886-90.
New York	23.9	19.2	18.5	20.3
Philadelphia	16.0	15.8	18.7	22.1
Boston	22.3	17.7	22.2	25.3
Baltimore	.....	21.6	15.7	11.4
New Haven	.....	.....	28.6	23.3
Providence	26.9	32.4	25.8	5.1
Dayton	.....	23.5	21.0	11.8
Washington	.....	22.7	20.8	13.5

For Massachusetts and England and Wales the periods covered are of almost the same length. The decrease has been most marked in Massachusetts, which in 1851-55 had a ratio of 29.6 per cent against a present ratio of only 21.8 per cent. Vermont shows a considerable increase, from a very favorable ratio in 1866-70 to the highest on record for the period 1886-90. The ratio for Rhode Island, which, according to Table I is 23 per cent for the period 1865-92, shows the abnormally low ratio of 9.7 per cent, for which I offer no explanation. With the exception of Vermont, there has therefore been a decrease in the proportion of women suicides to the aggregate total. On examination of Table VI this will also be found to be true for most of the cities included in this table. Boston and Philadelphia are the only two cities which show an increase in the ratio of female suicide, while Providence, R. I., corresponding to the cities for the state in Table V, makes returns for the abnormal ratio of only 5.1 per cent. The statistics for Rhode Island and Providence are perhaps the most trustworthy and complete in the country, and the low ratio cannot be accounted for by throwing doubt on the accuracy of the returns for the period of 1886-90. Unknown causes, for which I offer no explanation, must have produced this abnormal condition.

On the basis of the above table it would therefore appear that the sex relation in suicide is about the same for this country as for the states of Europe, and that, notwithstanding the general increase in suicide, there has been manifest a tendency towards a decrease in the relative proportion of suicides of women to total suicides. This fact, taken in connection with the well-known change in the economic and social condition of women in this country, especially in the New England states, would make it appear that the causes that operate to produce an increase in the general rate of suicide affect one sex in a different manner and to a different degree than the other so-called weaker sex. But my aim in this paper has not been to assign or explain cause, but simply to present the facts as they pertain to certain states and cities of the United States.—*American Statistical Association.*

SUICIDE AS A FACTOR IN LIFE INSURANCE.

In few respects have life insurance companies more radically modified their contracts than in regard to the effect of suicide during the first few policy years on the validity of the contract. Until a few years ago the large majority of companies applied the restriction as to suicide during the first three years of policy duration, but at the present time the large majority have so far liberalized their contracts as to make two years and in many cases one year the limit of the period during which suicide invalidates the policy. Out of twenty-seven representative companies, two make no restrictions whatever, eight make the limit one year, fifteen two years and one makes the restriction three years. One company still retains the old time rule that suicide at any time bars the payment of the policy unless the insured can be proven insane at the time he committed the act. During the past year three large and representative companies have changed their form of contract, in one case, from three years to one year, from three years in another case to two years and from two years to one year in the case of one company, the limit of risk in which is $100,000.

It is the purpose of this paper to call attention to merely one aspect of the question of the relation of suicide to life insurance, and that is the large and exceptional increase in suicide during the past three years as compared with the preceding period of three years, not only in actual numbers, but also in proportion to the population.

The first table to which I would call attention has been compiled from the census reports on vital statistics for 1880 and 1890, and while wanting in that degree of accuracy possible for more limited areas, it will represent approximately the relative degree of increase in suicide that has taken place during the decade with distinction of age and sex.

TABLE I.—*Mortality from Suicide in the United States, 1880 and 1890, Per Million Living at Same Ages.*

	Males.		Females.	
Ages	1880.	1890.	1880.	1890.
5-9	0.61	1.04	0.31	.....
10-14	4.12	4.76	1.42	2.89
15-19	35.94	26.77	20.52	27.50
20-24	70.45	86.31	27.63	44.31
25-29	89.58	96.72	33.99	45.85
30-34	110.07	117.10	28.31	37.62
35-39	136.85	150.60	33.93	38.01
40-44	149.54	164.90	33.46	40.49
45-49	174.28	236.90	41.55	44.15
50-54	201.71	245.60	33.21	70.70
55-59	250.39	274.10	41.91	56.20
60-64	241.08	296.50	40.43	52.91
65-69	284.58	325.30	43.30	43.34
70-74	255.99	324.40	85.56	38.44
75-79	346.31	316.40	28.07	67.02
80-84	191.34	286.10	38.25	75.47
85-90	182.58	264.20	35.80	71.80

The table shows that almost without exception, suicide increased at all ages and for both sexes during the ten years 1880-90. Approximately this table is correct, for the errors of the first census year would practically repeat themselves in the last census year and it is only at the very early and later ages that the lesser number of cases would affect the calculations. But a more emphatic demonstration of the alarming increase in sucide is brought out in the next two tables, the first of which will give the actual numbers and the second of which will give the proportionate rates per million of living population for some of the principal and most important cities of the United States during the past twenty-six years.

TABLE II.—*Average Number of Suicides Per Annum in Ten American Cities, 1870-1895.*

Cities.	1870-74.	1875-79.	1880-84.	1885-89.	1890-94.	1895.
New York	131	142	181	231	284	376
Chicago	44	48	81	133	269	350
Philadelphia	44	56	78	91	108	95
Brooklyn	29	46	54	64	107	161
St. Louis	21	*41	78	93	110	134
Boston	27	38	42	43	62	77
San Francisco	49	80	83	81	102	110
Baltimore	13	18	23	34	42	43
Cincinnati	25	37	41	53	50	66
Providence	8	9	11	8	13	11

TABLE III.—*Prevalence of Suicide in Seven American Cities, 1870-95.*

Cities.	RATES PER MILLION OF POPULATION. 1870-74.	1875-79.	1880-84.	1885-89.	1890-94.	1895.
New York	132.7	126.8	143.6	163.3	180.0	222.1
Chicago	122.1	111.7	143.2	171.5	195.6	218.7
Philadelphia	60.7	65.3	88.1	91.3	98.8	81.6
Brooklyn	67.6	89.8	89.3	88.1	123.9	167.4
St. Louis	65.9	145.5	211.9	221.0	231.3	261.3
Boston	95.3	109.1	111.3	103.2	132.2	154.4
Cincinnati	110.9	154.0	157.4	151.0	164.5	205.0

In the first table it is shown that the average number of suicides in New York City increased from 131 per annum during 1870-74 to 284 during 1890-94 and 376 during the year 1895.

Nearly all of the other cities represent similar increases, the most marked of which is met with in the case of St. Louis, where the average number has increased from 21 during 1870-74 to 110 during 1890-94 and 134 during 1895.

In proportion to the population the increase has been similarly distinct and emphatic. In New York the average number per million was 132.7 during 1870-74, 180.0 during 1890-94 and 222.1 during 1895. In St. Louis the average rate was 65.9 per million during the first five years, 231.3 during the last five years and 261.3 during the year 1895.

But a comparison for more recent years, that is for the last three years, in comparison with the preceding year, will bring out even more emphatically the fact that the increase in suicide has fallen largely, and out of all proportion, on the last three years; that is, the period during which the most liberal concessions have been made in regard to the effect of suicide

* Partly estimated for 1875.

on the life insurance contract. The comparison for the two three-year periods has been extended to a larger number of cities and covers, therefore, greater extent of territory. The rates are calculated on the mean population, estimated in nearly all cases by Farr's method on the basis of the geometrical increase of the population during intercensal years. The only exception is Chicago, to which city Farr's rule is not applicable and where the estimates of the board of health have been accepted for want of a more satisfactory basis.

TABLE IV.—*Suicide Per Million of Population, 1890-92 and 1893-95.*

Cities.	1890-92.	1893-95.
New York	167.7	203.9
Chicago	183.7	209.1
Philadelphia	90.4	98.0
Brooklyn	100.5	160.0
St. Louis	211.4	259.9
Boston	124.4	146.8
Baltimore	83.6	97.1
Cincinnati	175.7	188.8
Cleveland	123.8	112.1
Pittsburgh	85.7	115.5
Washington	117.6	147.2
Jersey City	107.3	126.2
Rochester	129.8	128.0

The results shown in Tables II and III are fully supported by the one now before us, and the suicide rate of the last three years is shown to be largely in excess of the rate for the preceding period. The most decided increase in the rate is to be observed in Brooklyn, St. Louis, Boston and Washington. The rates for Baltimore and Washington are understated on account of the large colored population, among which suicide is less common. The table below, for the city of New York and for the six years 1885-90, will show how far race and nativity affect the tendency to suicide in American cities. Only such populations have been selected the numerical representation of which is large enough to insure approximately accurate results.

TABLE V.—*Suicides in New York City, 1885-90,* According to Color and Nativity, Per Million of Population.*

COLOR—	White	212.4
	Colored	96.3
NATIVITY—	German	284.3
	English	234.8
	United States	153.1
	Russian Jews	141.8
	Irish	99.9

The well known propensity of the German race to self-murder is verified by this table and so is the antipathy of the colored and Irish race to the commitment of suicide; for both races the rates are practically the same.

The effect of a large German population on the suicide rate is clearly brought out in the rates for the large Western cities, most of all Cincinnati, St. Louis and Chicago. In Cincinnati, for instance, out of 813 suicides that occurred during the period 1877-94, 382 or 46.8 per cent

* Billings' Vital Statistics of New York and Brooklyn, 1885-90

were Germans. Out of 2,306 suicides recorded in the city of New York during the period 1878-91, 1,147 or 49.8 per cent were persons of German birth. The inordinate tendency of the German race to self-murder is met with under all conditions in all parts of the globe. How far these facts are supported by the experience of life companies cannot at present be determined in view of the paucity of data.

The recorded suicides, however, do not by any means cover the full extent of the evil. Railroad "accidents" cover no inconsiderable number of suicides, the result of a careless investigation on the part of incompetent coroners. Few reports or works on the subject of railroad accidents fail to consider this point and most of them draw attention to the prevalence of the evil. Even the elevated roads of New York City and of late the electric car lines report deaths of self-destruction by means of cars. For the State of Massachusetts a fairly satisfactory record is obtainable and presented in the next table, which shows the number of suicides on railroads during twenty years, and while no considerable increase in the number of such suicides is shown, the fact of their occurrence with a certain degree of periodical regularity is clearly proven.

TABLE VI.—*Suicide on the Railroads of Massachusetts, 1876-95.*

Year.	Suicides.	Year.	Suicides.
1876	....	1886	3
1877	8	1887	11
1878	3	1888	7
1879	5	1889	7
1880	4	1890	4
1881	3	1891	4
1882	7	1892	2
1883	3	1893	9
1884	4	1894	4
1885	3	1895	2
Average	4.0	Average	5.3

A more careful investigation of so-called "accidents to other persons" would, without question, bring forward the proof that a large number of "accidents" are actually suicides. In England, and especially in Germany, where the method of investigation of train accident is more rigid and painstaking, the number of railroad suicides is very much larger than in this country. On German railroads during the year 1893-94, 872 persons were killed, of which 193 were suicides, while of the 232 persons killed on the railroads of Massachusetts only four were suicides during the year 1894. On the railroads of Great Britain 64 persons per annum were killed as suicides during 1883-87, against 96 during the year 1895. Hence the necessity of a most careful investigation of every railroad accident, the possibility of which is that it is a disguised case of suicide. "Accidents" are far too frequent in the mortality experience of life insurance companies. The New York Life Insurance Company during the period 1845-94 experienced 21,723 deaths, of which 1,148 were "accidents" and 608 were suicides. The proportion of suicides to total deaths was therefore 2.8 per cent, against 1.1 per cent for the Mutual Life during the period 1843-74, 2.5 per cent for the Washington Life during the period 1860-86 and 2.0 per cent for the Mutual Provident of New

South Wales. The Mutual Life of New York during the ten years 1884-93 experienced 759 deaths from "accidents," of which 120 were railroad accidents, or more than from any other cause. Now, it will be of interest to compare, by years of duration, the mortality from railroad accidents in this company and from accidents by falls and falling bodies, the latter of which may be considered accidents in the true sense of the word.

TABLE VII.—*Duration of Insurance of Deaths from Railroad Accidents and Falls.*

Duration.	Railroad Accidents.	Falls and Falling Bodies.
1 and 2 years	28	19
3 to 5 years	9	17
6 to 10 years	14	15
11 to 20 years	34	35
21 years and over	35	33
Total	120	119

It will be observed by the above table that out of nearly the same number of accidents from two different causes among those caused by railroads a far larger proportion became claims during the first policy years than among those which were caused by what may be termed real accidents. Of course, in part, the larger proportion of railroad accidents during the first policy years is the result of selection against the company in that men who have been but recently employed on railroads will obtain insurance on the supposition, verified by experience, that railroad accidents to employes are most frequent among those who are new to the service. But the larger number of such accidents occurred during the first two policy years, when the suicide clause would affect the payment of the policy, are among passengers and other persons as will be seen by the following table:

TABLE VIII.—*Railway Accidents by Classes and Year of Duration.*

(Experience of the Mutual Life Insurance Company, 1884-93.*)

Year of Duration.	Total.	Passengers.	Other Persons.	Employes.	Street Cars.	Not Stated.
1-2	28	11	6	8	2	1
3-5	9	5	....	2	2	....
6-10	14	5	5	....	....	4
11-20	34	11	12	2	4	5
21 years and over	35	7	21	1	3	3
Total	120	39	44	13	11	13

On the basis of the foregoing facts the conclusions seem warranted that:

First—Suicide is very largely on the increase in the large cities of this country.

Second—That on account of the intricate nature of the act many suicides escape notice and are recorded as "accidents."

* "Mortality from Casualties," New York, 1896.

Third—That many so-called railroad accidents, especially those to "other persons," are in fact suicides.

Fourth—That the motive for disguise is not infrequently the policy restrictions as to suicide during the first few policy years.

Fifth—That more stringent restrictions instead of more liberal provisions in regard to suicide during the first five years of policy life should be the rule instead of the exception.

Sixth—That companies by their attempts to liberalize their contracts in this direction, invite, encourage and succeed in inducing a certain class of policyholders to insure for the sole purpose of fraud as was shown conclusively in the Runk case of Philadelphia, the Baker case of Shoe and Leather bank fame, Captain Hunt of St. Paul, J. A. Leach of Chanute, Kan., Walter G. Nicholson of Milwaukee, S. H. Sullivan of Louisville, Ky., Maurice Deitsch of New York, George E. Warren of Prospect, O., Robert Hicks of Chicago, etc., etc. The cases cited represent more than one million of insurance, the larger portion of which was taken out with the deliberate intention of fraud upon the company.

A three or five years restriction as to suicide would never act as a bar with any prospective insurer of honest intent. To take away all restriction as has been done by the law of Missouri, except in case of clearly proven fraud, which will ever be difficult, is without question a direct inducement to men in financial difficulties, to make a liberal provision for their families and prove that they are worth more dead than alive. Insanity is very rare in such cases, no act of a man's life can be proven more rational than suicide under adverse conditions, while at the same time a liberal provision is made for a man's family at the expense of the policyholders of a life insurance company. In the words of Mr. Harvey, the actuary of the Missouri Insurance Department: "The fact is so notorious that the class of rational suicides is rapidly increasing and to such alarming extent that members of the most conservative professions, the law, are beginning to realize that the old theory that the act is always irrational must be abandoned. The fact brings also the conviction in my mind that to prevent as far as possible the further increase of the cases, *it is the duty of the legislature to take out of the law every sentence which gives the least color of an inducement to any man to take away his own life.*" (The italics are mine.) "But," Mr. Harvey continues, "the wrong in this respect is not all chargeable to the law. *Insurance,* a weekly paper, asks a pertinent question referring to suicide: 'If he dies to win, is nobody to blame for having sold him the chance to win in that way?' In answer it may be unhesitatingly affirmed that the president, manager or actuary, who invented 'incontestability' for any cause whatever, except fraud, is guilty as accessory before the fact for a large proportion of the self murders that have occurred among the policyholders of life policies in the past ten years." (Mo. Ins. Report, 1894, pages XVIII and XIX.)

These harsh, but just, criticisms are fully justified by the facts presented in the tabular portion of this paper. In the city of St. Louis,

for instance, where the Missouri law of non-forfeiture in regard to suicide affects all policy contracts, the number of suicides has been very largely on the increase. During 1870-74 the rate was 65.9 per million, during 1885-89 the rate was 221.0, during 1890-94 231.3 and during 1895 the rate increased to 261.3 per million, the highest rate on record for any large American city in 1895. Yet there are no apparent local conditions in St. Louis which would seem to bring about this extraordinary propensity to suicide and its extraordinary increase during the past twenty-five years. In Cincinnati, where there is an even larger proportion of Germans in the population, the rate was higher than the St. Louis rate during the period 1870-74, but very much lower during the past eleven years. Is it not more than probable that this extraordinary increase is, in part, due to a law which puts a premium on self murder and in part to the companies which have gradually reduced the restrictive period to one year and in some cases have done away with it entirely?—*The Spectator,* August 6 and 20, 1896.

(See also table on page 270.)

THE SUICIDE RECORD OF 1896.

In *The Spectator* for August 6 and 20, 1896, I had occasion to deal at length with the vexed question of the relation of suicide to life insurance. The statistical tables introduced in these articles brought the data for the principal American cities down to the close of the year 1895, and for the purpose of affording an easy means of comparison I have compiled, from the advance reports of the health offices of thirty cities, the mortality from this cause during the year 1896, the details of which, together with the corresponding data for 1895, are given in the table below:

Mortality from Suicide in Thirty American Cities During 1895 and 1896.

Locality.	Suicides. 1895.	Suicides. 1896.	Actual Increase or Decrease.
New York	376	380	Inc. 4
Philadelphia	95	119	24
St. Louis	134	150	16
Boston	77	90	13
Baltimore	43	48	5
* San Francisco	110	148	38
Cleveland	37	44	7
* Washington	34	38	4
Milwaukee	48	58	10
Minneapolis	24	31	7
‡ Kansas City	36	49	13
Providence	13	19	6
Lowell	7	9	2
Cambridge	4	6	2
Hartford	8	13	5
Indianapolis	11	25	14
Detroit	19	21	2
Charleston	....	6	6
Portland	3	11	8
New Orleans	41	57	16
Dayton	7	12	5
Lynn	5	6	1
Chicago	350	331	Dec. 19
† Cincinnati	66	61	5
Buffalo	27	26	1
Pittsburgh	30	27	3
St. Paul	24	19	5
Jersey City	28	28	....
Worcester	8	8	....
Brooklyn	161	159	2
Thirty cities	1,826	1,999	Inc. 173

According to this table the number of suicides in the thirty cities under review increased from 1826 in 1895 to 1999 in 1896, or at the rate of 9.5 per cent per annum. Since the average annual increase in the population of these cities was only 4.6 per cent during the period 1880-90, the suicide rate during 1896 would appear to have increased

* Fiscal years ending June 30. † Estimated for month of March, 1896. ‡ Estimated for months of January and February, 1896.

at more than double the normal annual increase in the population. Thirty cities included in this table contained in 1890 a population of 9,372,000 or 51.3 per cent of the total urban population of the United States. The table would, therefore, seem to cover a territory sufficiently large to insure a representative rate of increase for the country at large.

The statistics given will materially differ from a certain class of newspaper returns, which are utterly untrustworthy and misleading, due to the fact that such returns as to homicide or suicide are not based on official reports, but on newspaper clippings, which not only include many duplicates but also very likely unsuccessful attempts at suicide and homicide.

The prevalence and increase in the mortality from suicide is, however, of sufficient importance to demand the most serious consideration on the part of life insurance companies with a tendency towards too much liberality.—*The Spectator,* July 1, 1897.

THE SUICIDE RECORD OF 1897.

In *The Spectator* for July 1, 1897, I had occasion to deal briefly with the suicide statistics of thirty leading American cities for the two years 1895-96. According to the table published at that time the number of suicides in the cities specified increased from 1826 in 1885 to 1999 in 1896, an increase equal to 9.5 per cent per annum. Since the subject is one of continuous interest, I have constructed a similar table for 1897 from advance statistics furnished by the health officers of the various communities to which, for the purpose of comparison, similar returns for the preceding seven years have been added. The table herewith will show the actual mortality from suicides in thirty-one leading American cities during the eight year period 1890-97.

According to this table the number of suicides in the thirty-one cities during 1897 was 2014, or 208 in excess of the number recorded during the preceding year. The increase during the year was equal to 10.3 per cent, against an increase of 9.5 per cent during the year 1896. In proportion to the population the increase has been even more marked as is shown in the table given below:

Mortality from Suicide in Thirty-one Leading American Cities, 1890-1897.

Year.	Estimated Population.	Suicides.	Rate Per 100,000.
*1890	8,988,568	1131	12.58
1891	9,313,055	1354	14.54
1892	9,649,256	1338	13.87
1893	9,997,594	1636	16.36
1894	10,358,507	1625	15.69
1895	10,732,449	1723	16.05
1896	11,119,890	1796	16.15
1897	11,521,318	2010	17.45

* Census year.

Suicide in Thirty-one American Cities, 1890-1897.

	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
New York	239	300	241	326	314	376	380	436
Chicago	206	246	244	353	294	350	331	384
Philadelphia	80	108	102	118	132	95	119	143
Brooklyn	94	79	79	120	165	161	159	194
St. Louis	86	109	99	129	127	134	150	162
Boston	50	45	76	79	59	77	90	92
Baltimore	25	39	48	50	48	43	48	60
Cincinnati	53	50	56	49	64	66	60	69
Cleveland	27	34	41	37	33	37	44	54
Buffalo	21	36	36	20	32	27	26	23
New Orleans	32	35	35	43	45	41	57	40
Pittsburgh	20	21	23	30	38	30	27	33
Washington	28	29	33	39	30	34	43	52
Milwaukee	27	35	45	35	42	48	58	62
Minneapolis	21	12	21	21	24	24	31	31
Jersey City	12	23	22	14	28	28	28	25
Rochester	17	13	24	22	15	21	21	18
St. Paul	26	30	5	23	20	24	19	25
Providence	6	24	8	13	14	13	19	16
Worcester	6	10	13	8	7	6	8	9

	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
New Haven	8	16	10	16	17	8	9	13
Lowell	4	3	9	7	5	7	9	2
Nashville	2	11	10	16	10	11	9	11
Cambridge	1	5	7	11	5	5	6	8
Memphis	6	....	13	5	14	24	4	9
Hartford	4	7	5	5	5	8	13	6
Oakland	8	10	10	18	15	7	6	11
Salt Lake	9	16	6	7	8	4	6	9
Manchester	2	2	3	4	6	4	6	2
Savannah	6	6	10	11	6	5	6	6
Erie	5	....	4	7	3	5	4	9
Total	1,131	1,354	1,338	1,636	1,625	1,723	1,796	2,014

It is shown in this table that the suicide rate in the leading American cities has increased from 12.58 per 100,000 in 1890 to 17.45 per 100,000 in 1897. The exceptional increase during the year 1893 was due, to a considerable degree, to the Chicago Exposition, which was partly responsible for an increase in the number of suicides in that city from 244 in 1892 to 353 during 1893. If we divide the eight year period into two periods of four years each, it appears that the rate during the first four years was equal to 14.39 per 100,000, against a rate of 16.36 per 100,000 during the last four years.

It is therefore sufficiently plain from the collected data that suicide is materially on the increase in the large cities of this country, and it is equally plain that this increase will continue for some years to come. Suicide must, therefore, be looked upon as an increasing element of danger in the experience of life insurance companies, and as one against which exceptional caution is necessary to guard effectually. It is not too much to say that during recent years suicide has increased not inconsiderably among the materially well to do, and what is worse, the act is being looked upon as a mere matter of course whether it occurs among the despondent and discouraged of the working population, or among Congressmen, bankers and millionaires.—*The Spectator,* May 12, 1898.

SUICIDES IN FORTY-FIVE AMERICAN CITIES DURING THE DECADE 1889-1898.

In *The Spectator* for May 12, 1898, I had occasion to deal briefly with the suicide statistics of thirty-one American cities for the period 1890-97. For the year 1898 I have been able to obtain advance statistics for forty-five cities, with an aggregate population of 12,579,497, and a total number of suicides of 2,138 during the year mentioned. The latter number of self-inflicted deaths represents an annual mortality of 17 per 100,000 of population. To ascertain whether the suicide rate for American cities has increased or decreased during the past five years, in comparison with the preceding quinquennial period, I prepared the following table for forty-five cities, showing for each of the five year groups, 1889-93 and 1894-98, the actual number of suicides reported as having occurred, together with the corresponding death rates per 100,000 of population. The plus or minus sign will indicate whether the rate has increased or decreased during the last five years, in comparison with the preceding period.

Out of the forty-five cities included in the list, twenty-six show an increase in the suicide rate prevailing during 1894-98, in comparison with the preceding period of five years. Included among those cities in which the rate increased are nearly all of the large cities of this country with more than 250,000 population. During the first five years there were twenty-three cities with an average suicide rate of more than 10 per 100,000, while during the last five years there were twenty-eight.

Suicides in Forty-five American Cities, 1889-1898.

	Actual No. of Suicides.		Rates per 100,000 of Population.		Increase. + Decrease. —
	1889-1893.	1894-1898.	1889-1893.	1894-1898	
New York, N. Y.....	1,350	1,969	17.4	22.7	+
Chicago, Ill.	1,231	1,706	21.5	22.2	+
Philadelphia, Pa.	512	653	9.5	11.0	+
Brooklyn, N. Y.....	457	902	10.9	18.1	+
St. Louis, Mo.....	525	744	22.7	28.3	+
Boston, Mass.	292	401	12.8	15.8	+
Baltimore, Md.	194	255	8.7	10.0	+
Cincinnati, Ohio.....	248	321	16.4	19.7	+
Cleveland, Ohio	171	218	12.4	12.4	—
Buffalo, N. Y.....	140	133	10.4	7.7	—
Pittsburgh, Pa.	110	165	8.8	10.7	+
Washington, D. C.....	135	196	11.4	14.6	+
Milwaukee, Wis.	171	272	16.1	20.9	+
Newark, N. J.....	147	173	15.6	15.5	—
Minneapolis, Minn. ..	91	128	10.7	12.3	+
Jersey City, N. J.....	83	150	10.0	16.0	+
Louisville, Ky.	92	90	11.0	9.6	—
Rochester, N. Y.....	95	102	13.6	11.9	—
St. Paul, Minn.....	101	116	14.3	12.1	—
Providence, R. I.....	61	85	9.1	11.5	+
Indianapolis, Ind.....	54	107	9.9	16.5	+
Worcester, Mass.....	33	41	8.6	8.0	—
New Haven, Conn.....	57	57	13.7	12.0	—

	Actual No. of Suicides.		Rates per 100,000 of Population.		Increase, + Decrease, —
	1889-1893.	1894-1898.	1889-1893.	1894-1898.	
Nashville, Tenn.	53	43	13.1	8.0	—
Cambridge, Mass.	27	29	7.5	6.9	—
Memphis, Tenn.	24	44	6.9	9.2	+
Wilmington, Del.	21	36	6.6	9.4	+
Dayton, Ohio	25	53	7.8	13.1	+
Reading, Pa.	25	32	8.3	9.1	+
Lynn, Mass.	15	21	5.3	6.6	+
Charleston, S. C.	12	11	4.3	3.8	—
Hartford, Conn.	28	39	10.3	12.7	+
Oakland, Cal.	55	58	21.8	19.4	—
Salt Lake, Utah	42	29	18.5	11.9	—
Lawrence, Mass.	13	24	5.6	8.9	+
Manchester, N. H.	15	26	6.6	9.8	+
Savannah, Ga.	37	27	16.5	10.2	—
New Bedford, Mass.	17	12	7.8	4.1	—
Erie, Pa.	20	32	9.5	12.5	+
Holyoke, Mass.	6	7	3.3	3.4	+
Mobile, Ala.	8	20	5.1	12.4	+
Chelsea, Mass.	12	10	8.4	6.3	—
Haverhill, Mass.	15	16	10.8	10.4	—
Newton, Mass.	11	5	8.8	3.5	—
Fitchburg, Mass.	10	10	8.7	7.3	—
Total (45 cities)	6,841	9,568	13.7	16.2	+

The table which follows has been arranged to show at a glance the prevailing intensity of the suicide rate in American cities during the decade 1889-98, together with the actual number of suicides which occurred during the ten years in each of the cities included in this table.

Suicides in Forty-five American Cities During the Decade 1889-1898.

	Actual No. of Suicides 1889-1898.	Rate per 100,000 of Population.		Actual No. of Suicides 1889-1898.	Rate per 100,000 of Population.
St. Louis, Mo.	1,269	25.6	Louisville, Ky.	182	10.3
Chicago, Ill.	2,937	21.9	Philadelphia, Pa.	1,165	10.3
Oakland, Cal.	58	20.5	Nashville, Tenn.	96	10.2
New York, N. Y.	3,319	20.2	Pittsburgh, Pa.	275	9.9
Milwaukee, Wis.	272	18.8	Baltimore, Md.	449	9.4
Cincinnati, Ohio	321	18.2	Buffalo, N. Y.	273	8.9
Newark, N. J.	173	15.5	Mobile, Ala.	28	8.8
Salt Lake, Utah	71	15.1	Reading, Pa.	57	8.7
Brooklyn, N. Y.	1,359	14.8	Memphis, Tenn.	68	8.3
Boston, Mass.	693	14.4	Manchester, N. H.	41	8.3
Indianapolis, Ind.	161	13.5	Wilmington, Del.	57	8.1
Jersey City, N. J.	233	13.2	Fitchburg, Mass.	20	8.0
Washington, D. C.	331	13.1	Worcester, Mass.	74	7.8
Savannah, Ga.	64	13.1	Lawrence, Mass.	37	7.4
St. Paul, Minn.	217	13.0	Chelsea, Mass.	22	7.3
New Haven, Conn.	114	12.8	Cambridge, Mass.	56	7.2
Rochester, N. Y.	197	12.7	Newton, Mass.	16	6.0
Cleveland, Ohio	389	12.4	Lynn, Mass.	36	6.0
Minneapolis, Minn.	219	11.6	New Bedford, Mass.	29	5.7
Hartford, Conn.	67	11.6	Charleston, S. C.	23	4.1
Erie, Pa.	52	11.1	Holyoke, Mass.	13	3.3
Dayton, Ohio	78	10.8			
Haverhill, Mass.	31	10.6	Total (45 cities)	16,409	15.1
Providence, R. I.	146	10.3			

It is shown by this table that the aggregate number of suicides in forty-five cities during ten years reached 16,409, corresponding to an average annual mortality of 15.1 per 100,000 of population. The city in which suicide was most common during the decade is shown to have been St. Louis, Mo., with an average rate of 25.6 per 100,000, while the city in which suicide was least common is shown to have been Holyoke, Mass., with a rate of only 3.3 per 100,000. Four of the cities, St. Louis, Chicago, Oakland and New York, had a rate in excess of 20 per 100,000. Philadelphia, although the third largest city as regards population, is twenty-sixth in the preceding table as regards the intensity of mortality from suicide, the rate being only 10.3 per 100,000, or about the same as the rate for Louisville, Ky., and Providence, R. I. I must add that New York city and Brooklyn have been considered as separate municipalities.

The subject is one which is deserving of more serious and intelligent consideration than has thus far been devoted to it on the part of insurance companies, and it would be very desirable to have companies contribute the results of their experience, along somewhat the same line as was done by the Mutual Life Insurance Company a few years ago, and which publication forms one of the most valuable contributions to our knowledge of the subject from an insurance standpoint.

It is worthy of more than passing consideration that in forty-five American cities more than 16,000 persons should have put an end to their own lives during a short period of ten years, and it is not too much to say that at no time has the public indifference to the occurrence of this act been as great as it is at the present time, for although the newspapers make daily mention of a more or less large number of suicides, the editorial columns make no reference to the subject, and even from the pulpit from whence one would expect the most severe condemnation of a most cowardly and criminal act, striking as suicide does at the very foundations of our civilization, practically no reference whatever is made to a crime which is in itself a most unworthy contempt of human life.—*The Spectator,* June 15, 1899.

THE SUICIDE RECORD OF 1899.

Suicide, as a factor affecting the interests of life insurance companies, represents a subject of increasing importance, in view of the fact that while the mortality from this cause is on the increase in most of the cities of this country, the practice of the companies has been constantly in the direction of the removal of all restrictions in the policy with reference to the contingency of self-inflicted death.

For some years I have annually, in *The Spectator,* discussed briefly the suicide record of the preceding year, and while occasionally the rate has remained stationary, or even slightly declined, in comparison with the record of the preceding decade, there has, as a rule, been shown to be an increasing frequency of suicide in the cities of this country.

The returns for the year 1899 confirm this view, and while the table (omitted) which follows is limited to forty-four cities, the aggregate population is sufficiently large to insure a representative character to the returns.

This table has been arranged in the manner that the cities have been placed in the order of relative suicide frequency, as established by the average rate for the decade 1889-1898. For 1899 the actual number of suicides and the relative rate per 100,000 of population has been given. Out of the forty-four cities included in this table the rate for 1899 is shown to have increased in twenty-five, while for nineteen a more or less important decrease in the rate is noted. In the aggregate there are shown to have been 2094 suicides in the forty-four cities during the year 1898, against 2207 during the preceding year. The corresponding rate per 100,000 of population decreased from 17.1 during 1898 to 15.7 during 1899. The possibility that the population of these cities may have been over-estimated is not likely to impair the conclusion that during the year just passed the mortality from suicide has actually, as well as relatively, been less than during the preceding year. I would, however, attach little value to this temporary decline in the suicide rate, which, no doubt, can be accounted for by the exceptional degree of commercial and industrial prosperity prevailing during 1899. The tendency of the suicide rate has been so constantly upwards for the past thirty years, that occasional fluctuations in the opposite direction have, as a rule, been followed by a larger increase in the rate during the year following.

Since the facts pertaining to the rapid increase in the mortality from suicide in the large cities of this country have not, as far as I know, been made public in a convenient form, I add here, for the purpose of making this contribution as interesting as possible, a table showing the mortality from suicide for fourteen cities of this country for a period of thirty years:

Suicides in Fourteen American Cities, 1870-1899.

	Estimated Population.	Suicides.	Rates per 100,000 of Population.
1870	4,028,743	349	8.7
1871	4,143,104	354	8.5
1872	4,262,315	457	10.7
1873	4,385,356	451	10.3
1874	4,554,560	552	12.1
1875	4,714,909	561	11.9
1876	4,840,765	567	11.7
1877	4,970,803	622	12.5
1878	5,105,081	592	11.6
1879	5,243,876	557	10.6
1880	5,380,516	612	11.4
1881	5,549,694	710	12.8
1882	5,718,964	818	14.3
1883	5,894,531	744	12.6
1884	6,077,991	859	14.1
1885	6,269,374	823	13.1
1886	6,476,192	881	13.6
1887	6,692,117	915	13.7
1888	6,916,759	979	14.2
1889	7,152,731	1,016	14.2
1890	7,398,149	1,023	13.8
1891	7,621,705	1,195	15.7
1892	7,853,274	1,199	15.3
1893	8,093,188	1,498	18.5
1894	8,341,782	1,500	18.0
1895	8,599,537	1,576	18.3
1896	8,866,620	1,675	18.9
1897	8,788,623	1,725	19.6
1898	9,430,741	1,929	20.5
1899	9,728,517	1,824	18.7
1870-'79	46,249,912	5,062	10.7
1880-'89	62,128,469	8,357	13.5
1890-'99	84,722,136	15,144	17.9

Commencing with a rate of 8.7 per 100,000 in 1870, the mortality from suicide is shown to have increased to 11.4 during the first decade, to 13.8 during the second decade, and to 18.7 during the third decade. The average rate for the first ten years is shown to have been 10.7, for the second ten years 13.5, and for the third ten years 17.9 for 100,000 of population, indicating a progressive, though not uniform, increase in the mortality from suicide in the cities of this country for which the returns are available. The increase in the average rate during the second decade over the first was 26.1 per cent, while the increase in the rate prevailing during the third decade over the second was 32.6 per cent, indicating a progressive increase in the suicide rate during the past thirty years.

The detailed information for each of the fourteen cities included in the last table is given in the following summary of average rates for each of the three decades forming the period 1870-1899, together with the actual number of suicides reported as having occurred.

Suicides in Fourteen American Cities, 1870-1899.

Cities.	Actual No. of Suicides. 1870-79.	1880-89.	1890-99.	Rates per 100,000. 1870-79.	1880-89.	1890-99.
*New York	1,369	2,063	3,508	13.0	15.4	20.8
Chicago	461	1,066	3,132	12.1	14.5	21.9
Philadelphia	498	845	1,222	6.7	9.1	10.6
Brooklyn	373	592	1,453	7.9	8.9	15.3
St. Louis	351	854	1,283	10.7	21.7	25.3
Boston	327	421	753	10.6	10.7	15.3
Baltimore	157	286	466	5.3	7.6	9.5
San Francisco	655	792	709	35.5	30.2	45.1
Cincinnati	311	422	584	13.3	15.4	18.4
New Orleans	149	306	414	7.4	13.4	16.2
Pittsburgh	102	178	292	8.9	9.3	10.0
Milwaukee	97	221	463	10.8	14.6	18.8
Newark	125	209	332	10.5	13.6	15.6
Providence	87	93	162	9.5	8.0	11.2
Total	5,062	8,348	14,773	11.0	13.4	17.7

Suicides in Fourteen American Cities, 1900-1924.

	Actual No. of Suicides. 1900-04.	1905-09.	1910-14.	Rates per 100,000. 1900-04.	1905-09.	1910-14.
New York	2,371	2,510	2,711	21.6	19.7	19.3
Chicago	2,073	2,183	2,575	23.1	21.3	22.4
Philadelphia	911	1,150	1,415	13.5	15.6	17.6
Brooklyn	1,086	1,087	1,217	17.2	14.5	14.2
St. Louis	777	1,038	1,218	26.0	31.7	34.5
Boston	391	536	581	13.4	16.8	16.9
Baltimore	297	449	523	11.4	16.4	17.4
San Francisco	993	943	1,010	55.5	47.6	46.4
Cincinnati	360	381	334	21.6	21.6	17.9
New Orleans	203	314	312	13.6	19.4	17.8
Pittsburgh	360	511	514	15.4	20.1	18.8
Milwaukee	327	384	395	21.6	22.0	20.1
Newark	305	392	366	22.9	24.7	20.2
Providence	101	197	187	10.9	18.8	16.5
Total	10,719	12,084	13,380	20.4	20.4	20.4

	Actual No. of Suicides. 1915-19.	1920-24.	Rate per 100,000. 1915-19.	1920-24.
New York	2,504	2,436	17.0	15.8
Chicago	2,500	2,051	19.5	14.6
Philadelphia	1,258	1,308	14.4	13.8
Brooklyn	1,179	1,075	12.3	10.2
St. Louis	939	788	25.0	19.8
Boston	615	534	16.9	13.9
Baltimore	492	500	14.3	12.9
San Francisco	1,057	874	43.7	33.0
Cincinnati	371	314	18.9	15.3
New Orleans	263	257	14.0	12.9
Pittsburgh	382	372	13.3	12.4
Milwaukee	356	344	16.3	14.4
Newark	294	275	14.8	12.7
Providence	165	136	14.1	11.3
Total	12,358	11,274	16.7	14.7

* Manhattan and Bronx.

It will be observed that with unimportant exceptions, the suicide rate has steadily increased in all of the fourteen cities during each of the three decades. If the second decade is left out of consideration, there is not a single city included in this table for which a material increase in the suicide rate prevailing during the last ten years, in comparison with the rate prevailing during 1870-79, is not shown to have taken place.

It is not the purpose of this article to discuss the principal causes responsible for this large and increasing waste of human life. Although a large number of works have been written on the subject of suicide and the allied phenomena of insanity and crime. The principal causes responsible for the increase in the tendency to self-destruction remain very largely a mystery, for which no satisfactory explanation has been offered. While it may be true that in the majority of instances the suicide is a worthless man or a cast-away woman, there is a very considerable remnant of which it can not be said that they belonged to the class of outcasts among whom suicide is of common occurrence. It is this respectable remnant which represents the element likely to prove a speculative and dangerous class of applicants for life insurance, men and women in whom education, instead of being a deterrent to crime, is largely made the means of concealing the evidence of criminal practices. Suicides among what, for want of a better term, is often called the better element, are of surprisingly frequent occurrence, and the number of intelligent, and even well-to-do, members of the community who, during recent years, have terminated their own existence, is relatively large.—*The Spectator,* June 21, 1900.

THE SUICIDE RECORD OF 1900.

In accordance with my usual custom I herewith present to *The Spectator* the statistics of suicides in the larger American cities for the year 1900, together with a comparative statement for the previous decade. The census returns of population for 1900 make the rates here presented as accurate as possible, and the suicide data for the fifty cities are, I believe, fairly representative of the general trend in the United States.

In the following table (omitted) the cities have been arranged in the order of relative suicide frequency, as established by the average rate, for the decade 1890-1899. The actual figures for the year 1900 are presented, and the rates per 100,000 of population for that year are compared with the average rates for the previous decade.

Of the fifty cities, twenty-three show an increase in suicides and twenty-seven show a decrease. The fifty cities, taken together, show a slight increase in suicide frequency in the year 1900 as compared with the preceding decade, the rate for 1900 being 15.8 per 100,000 of population, as against 15.4 for the decade 1890-1899.

In the following table (omitted) comparison is made of the average suicide rates in the fifty cities for the two last quinquennial periods. The cities are arranged in the order of the increase in suicides during the last period, as compared with the first. The increase represents suicides per 100,000 of population. In Hoboken, N. J., for example, there were annually 8.4 more suicides for every 100,000 of population during 1896-1900 than during the period 1890-1895.

On the basis of this comparison thirty-three of the fifty cities show an increase in suicides and seventeen a decrease. In the aggregate there was an increase of 1.7 suicides per 100,000 of population, representing an increase of 11.5 per cent.

In the concluding table a summary statement, by years, is presented of the suicides in the fifty cities:

Suicides in Fifty American Cities, 1890-1900.

Years.	Population.	Suicides.	Rates per 100,000 of Population.
1890	10,202,017	1,223	12.0
1891	10,499,098	1,465	14.0
1892	10,805,729	1,409	13.0
1893	11,102,211	1,764	15.9
1894	11,447,848	1,773	15.5
1895	11,785,348	1,839	15.6
1896	12,131,332	1,934	15.9
1897	12,478,410	2,161	17.3
1898	12,863,239	2,230	17.3
1899	13,238,013	2,121	16.0
1900	13,631,180	2,156	15.8

From this table it appears that the general trend of the rate is upward, though for certain years a decline is noted when comparison is made with the year just previous. In 1892 there was a decline in the

rate, followed by a considerable increase in the panic year of 1893. In 1894 there was a slight setback. In 1899 there was a falling off in the rate, and 1900 witnessed a very slight continued decline. The rate in 1900 was, however, 31.7 per cent higher than in 1890.—*The Spectator,* August 29, 1901.

THE SUICIDE RECORD OF 1901.

The suicide record for 1901 presents the usual feature of a gradually increasing tendency to self-destruction in the cities of the United States. The rate per 100,000 of population has changed from 15.8 in 1900 to 16.6 during 1901. The detailed record is for fifty cities, and the conclusions apply to a total city or urban population of 14,000,000. The large majority of the cities are such as have a population in excess of 50,000, but if all cities of 30,000 inhabitants and over had been included the rate would have been practically the same and the conclusions would have remained unchanged. The annual compilation of statistics of 135 cities with more than 30,000 inhabitants, by the United States Commissioner of Labor, gives a suicide rate of 16.3 per 100,000 for the year 1900. Hence the conclusions deduced from a tabular summary for fifty cities may be safely assumed to apply to all urban communities with a population in excess of 30,000, while for the entire country a somewhat lower rate governs, to which it may not be out of place to give brief consideration.

The census vital statistics for the year 1900, which have recently been published, deal almost entirely with what is called the registration area, or States and cities having a reasonably accurate system of registration of vital statistics. For this area, which includes urban as well as rural communities, the suicide rate is given as 11.8 per 100,000. If this rate is applied to the probable present population of the United States, estimated at 79,000,000, we have an approximate annual mortality of almost 10,000 suicides in the United States!

If the aggregate returns of the fifty cities are compared by individual years since 1890 it is shown that the indicated increase in the suicide rate has been quite gradual and persistent.

Suicides in Fifty American Cities—1890-1901.

	Total Population (50 Cities).	Suicides.	Suicide Rate per 100,000 of Population.
1890	10,202,017	1,223	12.0
1891	10,499,098	1,465	14.0
1892	10,805,729	1,409	13.0
1893	11,102,211	1,764	15.9
1894	11,447,848	1,773	15.5
1895	11,785,348	1,839	15.6
1896	12,131,332	1,934	15.9
1897	12,478,410	2,161	17.3
1898	12,863,239	2,230	17.3
1899	13,238,013	2,121	16.0
1900	13,631,180	2,156	15.8
1901	14,014,808	2,322	16.6
1890-1895	65,842,251	9,473	14.4
1896-1901	78,356,982	12,924	16.5

The rate for 1890 was 12.0 per 100,000 of population, increasing to 15.6 by 1895 and to 16.6 by 1901. The rates, however, were highest

during the two years 1897-8. If we compare the rate prevailing during the first six years with the last, it is shown that the average mortality from suicide was 14.4 per 100,000 during 1890-95, against 16.5 during 1896-1901. The implied conclusion is that a further increase in the rate of suicidal tendency in the cities of this country may be expected during the next decade, and the suicide question, like arson in fire insurance, is thus becoming more and more one of importance to life insurance companies.

The special interest of life insurance companies in the mortality from suicide is set forth in the following table, which has been extracted from the recently published mortality experience of the Mutual Life. The table is for males only, since the mortality of females from suicide is not numerically of sufficient importance to be presented in tabular form:

Mortality Experience of the Mutual Life.
1843-1898.

Mortality from Suicide—Males.

	1843-1885.			1886-1898.		
Ages.	Deaths from all Causes.	Suicides.	Per Cent. Suicides.	Deaths from all Causes.	Suicides.	Per Cent. Suicides.
Under 45	5,702	121	2.1	7,921	311	3.9
45-60	6,154	145	2.4	8,694	280	3.2
60	4,184	43	1.0	12,308	91	0.7
Unknown	22	.....	....	.....	.....	....
Totals	16,062	309	1.9	28,923	682	2.4

During the first period, ending with 1885, of the deaths from all causes suicides formed 1.9 per cent, the percentage having increased during the second period to 2.4 per cent. In the aggregate there have been 991 suicides among males during the period under observation, and the relative increase in the proportionate mortality has been 26 per cent. If separate age groups are considered, it appears that at ages under forty-five the proportion of suicides to the total mortality increased from 2.1 per cent to 3.9 per cent. At ages forty-five to sixty the increase was from 2.4 per cent to 3.2 per cent, while at ages sixty and over there was a decrease in the proportionate mortality from 1.0 per cent to 0.7 per cent. It is therefore evident that there has been a very considerable proportionate increase in the relative mortality from suicide at ages under sixty. Had the proportionate mortality from suicide at ages under sixty during the period 1886-1898 been the same as under the rates prevailing during the earlier period there would have been 377 suicides instead of 591, which actually occurred.

Among females the proportion of suicides was 0.2 per cent of the deaths at all ages during the first period under observation. The proportionate mortality from this cause increased to 0.9 per cent during the period ending with 1898. Of the actual mortality from suicide during 1886-1898, 70 per cent occurred at ages under forty-five, the relative percentage to the mortality from all causes at this age period having been 1.7 per cent. At ages forty-five to sixty the percentage of suicides to the total mortality was 0.8 per cent. It is therefore shown that among females suicides have occurred at a much lesser ratio than among males.—*The Spectator,* August 14, 1902.

SUICIDE RECORD OF 1902.

The suicide record of 1902 indicates a further increase in the rate from 16.6 per 100,000 of population during 1901 to 17.0 during 1902. The population of the fifty cities included in this review is, in round numbers, fourteen and a half million, so that the statement may be accepted as conclusive for American urban life.

The first table (omitted) of the series shows the actual and relative mortality from suicide in each of the fifty cities, first, for the decade 1892-1901, and second, for the year 1902. Of the fifty cities considered, twenty-eight show an increase in the rate during the year, when comparison is made with the previous decade, while twenty-one show a decrease, and in one city the rate remained the same.

The cities have been arranged in the order of their degree of suicidal frequency during the ten years 1892-1901, and St. Louis, Mo., again heads the table, as has been the case for a number of years. The order of the cities has undergone only slight changes, and we again find New Bedford, Camden, Newton and Fall River at the end of the list, with the lowest suicide rates in the tabulated experience of fifty cities. In the aggregate about 2,500 persons committed suicide in the fifty cities during the course of a year, or a population equal to a fair-sized country town. The table which follows shows the aggregate returns of the fifty cities considered by individual years since 1890:

Suicides in Fifty American Cities—1890-1902.

Years.	Total Population (Fifty Cities).	Suicides.	Suicide Rate Per 100,000 of Population.
1890	10,202,017	1,223	12.0
1891	10,499,098	1,465	14.0
1892	10,805,729	1,409	13.0
1893	11,102,211	1,764	15.9
1894	11,447,848	1,773	15.5
1895	11,785,348	1,839	15.6
1896	12,131,332	1,934	15.9
1897	12,478,410	2,161	17.3
1898	12,863,239	2,230	17.3
1899	13,238,013	2,121	16.0
1900	13,631,180	2,156	15.8
1901	14,014,808	2,322	16.6
1902	14,456,183	2,452	17.0

It is shown by this table that the suicide rate has increased from 12.0 per 100,000 of population in 1890 to 17.0 in 1902. The table would warrant the assumption that a further increase in the rate may be looked for.

It may be of interest to present a few additional facts bearing upon this subject in view of the increasing importance of suicide as an unfavorable element in life insurance practice. I have brought together the recorded suicide mortality for the city of New York for almost 100 years, and the deaths, together with the rates per 100,000 of population, are given in the following table. For 1844 the data are not available:

Suicides in New York City—1804-1926.*

—1804-1834—			—1835-1865—			—1866-1896—			—1897-1926—		
Years.	Deaths.	Rate per 100,000 Population.	Years.	Deaths.	Rate per 100,000 Population.	Years.	Deaths.	Rate per 100,000 Population.	Years.	Deaths.	Rate per 100,000 Population.
1804	10	12.7	1835	29	10.7	1866	54	6.1	1897	436	23.2
1805	26	34.1	1836	33	11.9	1867	82	9.1	1898	463	23.9
1806	15	18.8	1837	42	14.7	1868	98	10.7	1899	433	21.7
1807	16	19.1	1838	43	14.6	1869	102	11.0	1900	500	24.4
1808	8	9.1	1839	45	14.8	1870	101	10.7	1901	470	22.3
1809	16	17.4	1840	28	9.0	1871	114	11.8	1902	456	21.0
1810	8	8.3	1841	34	10.3	1872	144	14.6	1903	515	23.0
1811	9	9.1	1842	33	9.6	1873	118	11.6	1904	567	24.3
1812	5	4.9	1843	19	5.2	1874	180	17.3	1905	422	17.6
1813	11	10.6	1844	....	.....	1875	155	14.5	1906	442	17.9
1814	6	5.6	1845	20	5.0	1876	150	13.7	1907	442	17.4
1815	5	4.6	1846	20	4.7	1877	148	13.2	1908	644	24.6
1816	15	13.4	1847	32	7.2	1878	142	12.4	1909	572	21.3
1817	18	15.7	1848	34	7.3	1879	117	9.9	1910	523	19.0
1818	24	20.4	1849	35	7.1	1880	152	12.6	1911	496	17.8
1819	27	22.4	1850	31	6.0	1881	166	13.5	1912	531	18.9
1820	15	12.1	1851	34	6.3	1882	199	15.8	1913	565	19.9
1821	16	12.3	1852	37	6.6	1883	161	12.5	1914	618	21.6
1822	13	9.6	1853	35	5.9	1884	229	17.3	1915	606	20.9
1823	18	12.7	1854	59	9.6	1885	207	15.3	1916	545	18.7
1824	19	12.8	1855	63	9.8	1886	223	16.1	1917	470	15.9
1825	14	9.0	1856	62	9.2	1887	235	16.6	1918	442	14.9
1826	29	17.7	1857	72	10.2	1888	247	17.1	1919	424	14.1
1827	23	13.4	1858	75	10.2	1889	244	16.5	1920	413	13.6
1828	32	17.8	1859	56	7.3	1890	239	15.8	1921	555	18.2
1829	33	17.5	1860	62	7.7	1891	300	19.0	1922	485	15.7
1830	29	14.7	1861	44	5.4	1892	241	14.9	1923	507	16.9
1831	23	11.0	1862	43	5.2	1893	314	18.8	1924	489	15.6
1832	29	13.0	1863	50	5.9	1894	331	19.2	1925	575	20.4
1833	30	12.6	1864	23	2.7	1895	376	21.2	1926	579	20.8
1834	33	13.0	1865	44	5.1	1896	384	21.0			

This table presents some very interesting, and at the same time very curious, features. It appears that the suicide rate during the first twenty-five years was 13.6 per 100,000 of population, decreasing to 8.9 during the next twenty-four years. The rate was low during the twenty years preceding the Civil War, but since that period the rate has gradually increased from about ten per 100,000 of population to about twenty-one. The rate during the last twenty-four years was 18.5, which is 5.1 per 100,000 of population higher than during the first quarter of the nineteenth century.

This table is supplemented by the following, which is limited to males only, ages thirty-five and over, and for the period 1881-1901, excepting 1888 and 1889, for which years the data were not published by the Board of Health:

* Manhattan and Bronx Boroughs.

Suicide Mortality of Males, Ages 35 and Over, New York City—1881-1901.

Year.	Population (Males), Ages 35 and Over.	Suicides (Males), Ages 35 and Over.	Rates Per 10,000 Population.
1881	184,587	89	4.82
1882	188,558	113	5.99
1883	192,615	92	4.78
1884	196,757	121	6.15
1885	200,987	102	5.07
1886	205,308	117	5.70
1887	209,720	112	5.34
1890	223,601	126	5.64
1891	231,506	152	6.57
1892	239,687	137	5.72
1893	248,155	171	6.89
1894	256,918	188	7.32
1895	265,986	199	7.48
1896	275,372	196	7.12
1897	285,085	240	8.42
*1898	491,251	352	7.17
*1899	509,572	324	6.36
*1900	528,934	402	7.60
*1901	549,224	339	6.17

According to this table the suicide rate of males, ages thirty-five and over, increased from 4.8 per 10,000 of population in 1881 to 6.2 in 1901. If the data are consolidated by periods, it appears that during 1881-1887 the rate was 5.4 per 10,000 population, against 6.6 during 1890-1895, and 7.0 during 1896-1901. We have here very striking evidence of a progressive increase in the suicide rate of males, ages thirty-five and over, representative of the period of life which includes the larger proportion of male risks insured with American life insurance companies.

It has been shown in Table I (omitted) that the suicide rate is highest in cities which contain a very large proportion of German population, or of allied nationalities, such as Bohemians, Russians, etc. While the relation of nativity to suicide frequently is quite well understood, it may not be out of place to quote from the Census of 1900 as follows:

In the registration area, for which the returns are trustworthy, the suicide rate of native Americans is returned as 6.8 per 100,000 of population, against 6.1 for those of Irish origin, 19.3 for those of German origin, and 22.0 for those of French origin. By age periods, it is shown at ages 15-44 the suicide rate of natives was 7.2, of the Irish 6.7, of the Germans 16.6, of the French 16.5, and of the Bohemians 19.6. At ages 45-64 the suicide rate of natives was 16.7, of the Irish 7.3, of the Germans 41.5, of the French 33.3, and of the Bohemians 62.4. This pronounced tendency to suicide on the part of the peoples of Germanic origin led me to make a limited investigation into the experience of German life insurance companies. I obtained the returns for a period of years of eight representative companies, which show that of 8,526 deaths from all causes, 279, or 3.27 per cent, were suicides. In

* Greater New York.

one company, which concerns itself almost exclusively with military risks, the percentage of suicides in the total mortality was 6.13. If these percentages are compared with the experience of American companies, we find that in the experience of the Mutual Life during 1886-1898 the percentage of suicides in the total mortality was 2.40. In the experience of the Northwestern Mutual during 1897-1902 the percentage was 2.50. In the experience of the Scottish Widows Fund during the period of 1888-1894 there were only 50 suicides out of a total mortality of 3,658, or 1.35 per cent. The published experience of the Gotha Life Insurance Company, covering the period 1829-1878 (published in 1902), contains some very interesting information on this subject. I have abstracted from the experience of the company a table, rearranged to correspond almost exactly with the published experience of the Scottish Widows Fund and the returns for England and Wales for 1881-1890.

Mortality Experience of the Gotha Life Insurance Company.
Suicide Mortality, 1829-1878.

	Gotha Life Insurance Company.			Scottish Widows Fund.	England and Wales.
Ages.	Lives Exposed to Risk.	Suicides.	Rate Per 1,000 Population.	1874-1894.	1881-1890.
20-25	7,200	2	0.28	0.09	0.07
26-35	138,500	32	0.23	0.15	0.12
36-45	297,900	91	0.31	0.20	0.20
46-55	276,200	142	0.51	0.28	0.31
56-65	169,100	97	0.57	0.26	0.44
66-75	63,400	24	0.38	0.31	0.48
75	11,000	3	0.03	.....	0.37

It is shown by this table that at all ages the mortality from suicide in the experience of the Gotha Life has been much higher, at some periods twice as high, as the mortality experience of the Scottish Widows Fund. When it is taken into consideration that this experience ends with 1878, and that a large increase in the suicide rate has taken place subsequent to that period, the comparison probably understates quite considerably the actual state of affairs.

The following table shows the mortality from suicides by amounts of insurance, arranged in three groups, respectively under 3,000 marks, from 3,000 to 6,000 marks, and over 6,000 marks. The table presents some exceedingly interesting and suggestive features.

Mortality Experience of the Gotha Life Insurance Company.
Suicide Experience, 1829-1878.

Amount of Insurance.	Expected Mortality.	Actual.	Ratio of Actual to Every 100 Expected
Under 3,000 marks	119.03	111	93.3
3,000 to 6,000 marks	187.54	170	90.7
Over 6,000 marks	84.13	110	130.8

It is shown by this table that the ratio of actual to expected mortality was 93 for the first group, 91 for the next group, and 131 for the third group. In other words, there was no selection against the company with risks insured for small amounts but a pronounced selection against the

company with risks insured for large amounts. To determine how far this experience corresponded to the general experience of the company, I abstracted the following table, in which the two series of facts are compared for two age periods:

Mortality Experience of the Gotha Life Insurance Company.
Suicide Experience, 1829-1878.

Amount of Insurance.	Ratio of Actual to Every 100 Expected Deaths			
	Ages 15 to 50.		Ages 51 to 90.	
	Suicides.	All Causes.	Suicides.	All Causes
Under 3,000 marks	98.2	109.7	88.6	102.8
3,000 to 6,000 marks	83.2	98.0	97.9	97.4
Over 6,000 marks	139.3	90.7	122.9	101.6

It is shown by this table that the suicide experience of the company is in direct opposition to the general experience of the company. While the suicide mortality experience is most unfavorable with risks insured for large amounts at both age periods, in the general experience it is less favorable with risks under small policies. This table would seem quite conclusive and prove that the extra mortality from suicide as the result of adverse selection would most likely occur under large policies, rather than under those for small amounts. While the experience of a German company, especially one limited to a period terminating with 1878, may not be applicable to the experience of an American company, it at the same time furnishes food for thought, more so in view of the fact that we have in this country a population of German origin numbering not far from ten million, and the further fact that the suicide rate is highest in the cities which contain a very large proportion of this nationality.

The favorable experience of the Scottish Widows Fund is also equally deserving of careful consideration. The experience of the company has recently been published, covering the period 1874-1894, as reported upon by Claude Muirhead, M. D., medical officer of the society. It is shown that the suicide rate per 10,000 exposed to risk increased from 2.06 during 1874-1880 to 2.23 during 1881-1887. Since that time there has been a considerable decrease, so that the rate during 1888-1894 was only 2.07 per 10,000 exposed to risk. It would have been interesting to have known the relative degree of suicidal frequency among the three leading elements entering into the experience of the company, that is, the English, the Scotch, and the Irish, but the exposed to risk by nativity are not given. Dr. Muirhead comments upon the experience of the company as follows:

"It is useless to speculate as to the circumstances and motives which lead suicides to commit the fatal act. Often these are exceedingly trivial. At other times, rather than endure a life of misery, the result of family troubles, business worries, embarrassed circumstances, or disgust of life —possibly the result of melancholia—the man prefers to end it. If it be assumed that all those who make away with themselves were, as the coroner's jury usually describe it, 'of unsound mind,' at the time they committed the deed—and it is hard to believe that the man who has so far lost the natural instinct of self-preservation as to commit suicide is not, at the very least, *temporarily* insane—then our statistics form a very strong argument in favor of the view that insanity is on the increase among the community, a statement which has the support of the

Registrar-General for England. But there is one remarkable feature with regard to those suicidal deaths which is worthy of observation, and that is the extraordinary large number which took place in the early years of assurance. No less than 7.1 per cent of the total deaths by suicide occurred in the very first year, and 3.2 per cent in the second year. Twenty-two deaths by suicide were committed during the first five years of assurance, and of these 59 per cent took place during the first and second years of assurance.

"Of the total suicidal deaths there occurred:

"During the first year of assurance, 9 deaths, 7.087 per cent of total suicides.

"During the second year of assurance, 4 deaths, 3.150 per cent of total suicides.

"During the third year of assurance, 2 deaths, 1.575 per cent of total suicides.

"During the fourth year of assurance, 2 deaths, 1.575 per cent of total suicides.

"During the fifth year of assurance, 5 deaths, 3.935 per cent of total suicides.

"Total in five years, 22 deaths, 17.322 per cent of total suicides.

"These facts raise the unpleasant suspicion that there was floating in the minds of some, at least, of these men, before they became members of the society, some thought, however vague, of putting an end to the weary struggle between duty and the desire to have done with what was to them a miserable existence. Next came the feeling that in any case the family ought to be provided for, and a life assurance policy was taken out. After effecting this assurance, possibly all idea of suicide passed away entirely, till some renewed outburst of adverse circumstances overcame the power of moral resistance, and the unfortunate man yielded to the insane impulse. It is difficult to believe that any man would deliberately propose for life assurance with the fixed resolve in his mind of putting an end to his existence immediately after acceptance, though the number of suicides during the first year of assurance certainly points to that view of the case."

Summarizing this annual review of the suicide record of American cities, the conclusions advanced in former years remain unchanged. The subject is one deserving the most careful attention on the part of all insurance companies interested in the best development of the business and the protection of the policyholders. For, as pointed out in a medical journal some years since, after discussing the views of those who would not hesitate to realize upon life insurance at the expense of others, "We believe that there are not a few who at certain periods of their lives think less of their own lives than they do of the comfort of their families, and are ready to undertake to realize on their life insurance for the benefit of the latter."—*The Spectator,* August 27, 1903.

THE SUICIDE RECORD OF 1903.

During 1903 there were 2,738 suicides in fifty American cities, with a total population of about fifteen million. This is at the rate of 18.4 suicides per 100,000 of population, and the highest rate which has been experienced since 1890, when the writer began the annual tabulation of these facts. If this rate is applied to the estimated total urban population living in cities with four thousand inhabitants or over, we find that the annual mortality from suicide in these cities is about 6,600. The suicide rate for 1903 is 1.39 per 100,000 in excess of the rate for the previous year, and 2.09 per 100,000 higher than the average rate for the preceding decade. The evidence is conclusive that the suicide rate in American cities is constantly increasing and gradually assuming alarming proportions. From a life insurance point of view, suicide represents today one of the most important problems demanding serious consideration. The recent suicide of H. B. Plant of Macon, Ga., involving about one million dollars of insurance, serves as a pertinent illustration of an increasing number of cases in which the liberal policy provisions regarding suicide are taken advantage of and used as a means to defraud the companies and their policyholders.

The first table of the series shows the actual and relative mortality from suicide in each of the fifty cities, first for the decade 1893-1902, second for the year 1903. Of the fifty cities considered, thirty-six show an increase in the suicide rate, while fourteen show a decrease.

The cities have been arranged in the order of their degree of suicide frequency during the ten years 1893-1902. While in former years St. Louis was at the head of the table, this unenviable position is now assumed by the city of Hoboken. For the first ten cities, the positions remain relatively unchanged. Eight of these cities show an increase in the suicide rate, while two show a very slight decrease. The highest rate during 1903 is reported for Orange, N. J., but this result is one, in part, of accidental circumstances, usual with relatively small cities. It is often the case that residents of one city go to another for the purpose of ending their existence, and a few such cases naturally increase abnormally the suicide rate of small cities. Hoboken, St. Louis and Chicago, with their proportionately large German element, continue to exhibit the highest degree of suicide frequency.

It is shown by the second table that the suicide rate has increased from 12.0 per 100,000 of population in 1890 to 15.9 during 1896, and to 18.4 during 1903. The table warrants the assumption that a further increase in the suicide rate in the near future may be anticipated with reasonable certainty.

Suicides in Fifty American Cities—1893-1902 and 1903.

Cities.	1893-1902. Number of Suicides.	1893-1902. Rate per 100,000 Population.	1903. Number of Suicides.	1903. Rate per 100,000 Population.
Hoboken, N. J.	153	27.14	17	27.09—
St. Louis, Mo.	1,404	25.87	173	27.97+
Chicago, Ill.	3,630	23.64	482	24.91+
Oakland, Cal.	145	23.35	17	23.07—
N. Y. City (Man. & Bronx)	4,154	21.60	515	23.00+
Milwaukee, Wis.	543	20.37	74	23.92+
Cincinnati, O.	597	18.75	80	23.87+
Newark, N. J.	421	18.25	69	25.89+
Brooklyn, N. Y.	1,832	17.13	234	17.96+
Haverhill, Mass.	55	16.21	10	23.76+
Indianapolis, Ind.	245	16.16	25	12.82—
New Orleans, La.	431	15.65	45	14.89—
Boston, Mass.	828	15.63	81	13.43—
Jersey City, N. J.	292	14.99	37	16.66+
New Haven, Conn.	150	14.85	17	14.45—
Rochester, N. Y.	219	14.13	21	12.20—
Cleveland, O.	482	13.77	79	18.47+
Minneapolis, Minn.	261	13.53	31	14.37+
St. Paul, Minn.	207	13.30	29	16.66+
Washington, D. C.	349	13.11	59	19.99+
Erie, Pa.	62	12.52	2	3.51—
Pittsburgh, Pa.	356	11.88	63	17.91+
Passaic, N. J.	27	11.70	4	11.06—
Dayton, O.	92	11.65	12	12.73+
Louisville, Ky.	222	11.49	27	12.27+
Philadelphia, Pa.	1,397	11.37	191	13.86+
Providence, R. I.	177	10.96	22	11.19+
Mobile, Ala.	40	10.95	3	7.32—
Baltimore, Md.	534	10.90	58	10.87—
Detroit, Mich.	281	10.62	51	16.29+
Hartford, Conn.	77	10.60	13	14.42+
Buffalo, N. Y.	322	9.86	51	13.15+
Reading, Pa.	70	9.52	12	13.90+
Worcester, Mass.	102	9.37	14	10.60+
Lowell, Mass.	83	9.23	13	12.75+
Manchester, N. H.	49	9.14	8	13.00+
Lawrence, Mass.	51	8.87	5	7.17—
Elizabeth, N. J.	42	8.73	5	8.64—
Cambridge, Mass.	75	8.66	11	11.15+
Chelsea, Mass.	27	8.28	4	11.16+
Orange, N. J.	19	8.16	10	40.02+
Fitchburg, Mass.	21	7.24	4	11.41+
Holyoke, Mass.	30	6.97	8	16.23+
Lynn, Mass.	43	6.58	4	5.52—
Somerville, Mass.	32	5.65	5	7.34+
Trenton, N. J.	36	5.28	9	11.16+
New Bedford, Mass.	27	4.63	4	5.95+
Camden, N. J.	28	3.99	6	7.10+
Fall River, Mass.	26	2.68	23	19.91+
Newton, Mass.	6	1.96	1	2.71+
Total	20,752	16.30	2,738	18.39+

The second table of the series shows the actual and relative mortality from suicide during each of the years forming the period 1890-1903, together with a statement of the total population considered and the suicide rate per 100,000 of population.

Suicide in Fifty American Cities—1890-1903.

Years.	Total Population (Fifty Cities).	Suicides.	Suicide Rate per 100,000 of Population.
1890	10,202,017	1,223	12.0
1891	10,499,098	1,465	14.0
1892	10,805,729	1,409	13.0
1893	11,102,211	1,764	15.9
1894	11,447,848	1,773	15.5
1895	11,785,348	1,839	15.6
1896	12,131,332	1,934	15.9
1897	12,478,410	2,161	17.3
1898	12,863,239	2,230	17.3
1899	13,238,013	2,121	16.0
1900	13,631,180	2,156	15.8
1901	14,014,808	2,322	16.6
1902	14,456,183	2,452	17.0
1903	14,889,074	2,738	18.4

A very useful contribution to the literature of suicide as an insurance problem is to be found in the Annual Proceedings of the Supreme Council of the Royal Arcanum for 1897-1904. As far back as 1886, the number of suicides in the experience of the order and the resulting loss attracted the attention of the governing body and a memorial was presented that year by a local council recommending the forfeiture of death benefits in case of suicide. No action was taken in the matter, but in 1895 the attention of the supreme council was again called to this matter by a representative from Pennsylvania, who requested that no benefit should be paid in the event of suicide, while sane or insane, within two years from the date of admission to the order. A special committee was appointed to investigate the matter at the annual session in 1897, and a preliminary report on the subject was made, covering the experience of two years. Recognizing the necessity of a more thorough investigation, a special committee was appointed, which made its report at the meeting of 1898. This report is a very comprehensive document and conclusively proves that the mortality from suicide in the experience of the order had very considerably increased since 1892; so much so that while the average rate per 100,000 members had been 25.4 during 1888-1892, it was 41.8 during 1893-1897. While in part the increase may have been the result of more careful scrutiny of the death certificates, it is quite apparent that to a considerable extent the increase was the result of adverse selection and established intention to defraud the order. The committee point out that they "are fully aware of the peculiar and distressing character of the hardships visited upon the innocent victims of the suicide's act," but "we are also cognizant of the fact that there are other widows and orphans, who have at least equal rights, who are looking to the order for protection in the darkest hour of bereavement and necessity."

The committee refer to financial and domestic troubles as a contributory cause of suicide. It is urged that "while men may differ as to their ability to endure hardship in its varying aspects, the man who deliberately terminates an existence which can only be unpleasant, and by his act leaves the world rather than endure the same misfortunes which must come to many of his brothers, can scarcely be considered a brave man."

The committee, therefore, conclude that "The implied contract between the supreme council and members of that order we find has been, in the majority of cases investigated, willfully and deliberately violated in such a way as to injure the order financially, and in our opinion such action merits and should receive the same action as maintains in other contracts in life. The conclusion of the committee is that "We find no evidence tending to show that, as a general rule, any have joined the order for the express purpose of committing suicide to obtain the amount of insurance, but from the letters left and the declarations made by many of them, it is evident that had they known that the suicidal act would void their policies, that fact would have deterred a large number of them from committing it. In many of the cases explicit directions were given as to the disposition of the money, and great care was taken to see that assessments were paid, benefit certificates signed, and all the other legal requirements complied with, it being clear that the payment of death benefit, obtained at so small a cost, was an important factor to a despairing man."

The final conclusion of the committee is summed up in the statement that, "so long as we neglect to place some restriction upon this practice, we encourage it. If it were known that suicide, while sane, would prevent the payment of death benefits, it would, in many cases, in our opinion, stay the suicidal impulse, and it is the deliberate sense of your committee that there is more fraternity in restraining the suicide's hand and preserving his life to his family than in paying a sum of money to the beneficiary, and so practically placing a premium on self-destruction. We do not believe that the founders of our order intended to throw the mantle of fraternalism over those who deliberately violate the laws of God and man." On the basis of the facts collected and the conclusions arrived at, the committee, in Section IV of its recommendations, suggested an amendment to the constitution of the order providing that no benefit should be paid to the beneficiary of a man committing suicide within five years of his admission to the order, except in the cases of such members as had been judicially declared insane, or who suicided while in the delirium of other illness, or while under treatment for insanity, or under other conditions which, in the opinion of the examiner of claims and medical examiner in chief, give rise to reasonable doubts as to the mental responsibility of the suicide. The committee consisted of Charles S. Benedict, M. D., New York; J. Day Otis, New Jersey, and Edwin H. Leisenring, Pennsylvania. The report of the committee is one of the most instructive contributions to the literature of suicide which has come to the writer's notice.

Since the publication of the report and the change in the practice of the Royal Arcanum, annual reports have been made relative to the subsequent experience of the order, which fully confirm the view of the committee that deliberate fraud was practiced upon the order by a large number of members, well aware of the wrong inflicted upon the membership at large.

The experience of the order has been tabulated in an intelligent manner and the following two tables have been rearranged from the information which has been made public. The first of these tables shows the suicide experience of the Royal Arcanum from 1880 to 1903, including

the average membership, the actual number of suicides and the resulting rate per 100,000 members.

Suicide Experience of the Royal Arcanum—1880-1926.

Year.	Average Membership.	Number of Suicides.	Rate per 100,000 Members.
1880	21,543	7	32.5
1881	29.485	5	17.0
1882	36,680	5	13.6
1883	44,035	11	25.0
1884	51,008	17	33.3
1885	56,996	13	22.8
1886	65,691	18	27.4
1887	75,372	14	18.6
1888	83,270	25	30.0
1889	92,630	22	23.8
1890	105,397	27	25.6
1891	118,674	33	27.8
1892	132,134	28	21.2
1893	143,192	60	41.9
1894	153,750	62	40.3
1895	166,134	69	41.5
1896	183,160	78	42.6
1897	192,078	82	42.7
1898	193,043	82	42.5
1899	190,057	67	35.3
1900	201,622	76	37.7
1901	221,376	81	36.6
1902	242,867	84	34.6
1903	269,575	103	38.2
1904	295,396	112	37.9
1905	299,361	99	33.1
1906	247,539	87	35.1
1907	240,623	102	42.4
1908	240,301	84	35.0
1909	242,590	88	36.3
1910	244,193	83	34.0
1911	247,173	96	38.8
1912	249,601	80	32.1
1913	248,244	97	39.1
1914	247,281	106	42.9
1915	244,540	95	38.8
1916	243,095	101	41.5
1917	166,930	64	38.3
1918	141,562	33	23.3
1919	134,628	34	25.3
1920	134,970	33	24.4
1921	133,191	29	21.8
1922	126,915	42	33.1
1923	124,215	36	29.0
1924	118,402	31	26.2
1925	112,458	37	32.9
1926	108,128	40	37.0

It is shown by this table that during the earlier years of the experience of the order the suicide rate fluctuated considerably. For some unexplained reason, apparently not ascertained by the special committee, the suicide rate increased suddenly, from 21.2 during 1892 to 41.9 during 1893. This high rate was maintained until 1898, when, as the result of the suicide law* of that year, a decrease was effected. The suicide rate

* Restrictive regulation of the order.

decreased from an average of 41.8 during the five years 1893-1897, or prior to the suicide law, to 36.5 during the last five years since the suicide law has been in operation. The conclusion that the suicide law of 1898 materially reduced the mortality from suicide during the first five years of membership is more conclusively brought out by the following table:

Suicide Experience of the Royal Arcanum—1893-1926.

	Years.	Total No. of Suicides.	Membership Less Than Five Years. No. of Suicides.	Membership Less Than Five Years. Rate per 100,000.	Membership Five Years and Over. No. of Suicides.	Membership Five Years and Over. Rate per 100,000.
Experience prior to suicide law of 1898.....	1893	60	25	17.5	35	24.4
	1894	62	25	16.3	37	24.1
	1895	69	33	19.9	36	21.7
	1896	78	25	13.6	53	28.9
	1897	82	23	12.0	59	30.7
	1893-97	351	131	15.6	220	26.2
Experience under the suicide law of 1898.....	1899	67	10	5.3	57	30.0
	1900	76	13	6.4	63	31.2
	1901	81	10	4.5	71	32.1
	1902	84	16	6.6	68	28.0
	1903	103	22	8.2	81	30.0
	1899-03	411	71	6.3	340	30.2
	1904	112	23	7.8	89	30.1
	1905	99	18	6.0	81	27.1
	1906	87	20	8.1	67	27.1
	1907	102	21	8.7	81	33.7
	1908	84	10	4.2	74	30.8
	1904-08	484	92	7.0	392	29.6
	1909	88	5	2.1	83	34.2
	1910	83	9	3.7	74	30.3
	1911	96	7	2.8	89	36.0
	1912	80	10	4.0	70	28.0
	1913	97	11	4.4	86	34.6
	1909-13	444	42	3.4	402	32.6
	1914	106	8	3.2	98	39.6
	1915	95	3	1.2	92	37.6
	1916	101	8	3.3	93	38.3
	1917	64	1	0.6	63	37.7
	1918	33	0	0.0	33	23.3
	1914-18	399	20	1.9	379	36.3
	1919	34	3	2.2	31	23.0
	1920	33	0	0.0	33	24.4
	1921	29	0	0.0	29	21.8
	1922	42	1	0.8	41	32.3
	1923	36	1	0.8	35	28.2
	1919-23	174	5	0.8	169	25.8
	1924	31	0	0.0	31	26.2
	1925	37	0	0.0	37	32.9
	1926	40	1	0.9	39	36.1

This comparison is a most instructive one. The ratio of suicides of less than five years' duration has decreased from 15.6 per 100,000 members during 1893-1897 to 6.3 during 1899-1903.* In marked contrast to this observed decrease, the ratio of suicides of more than five years' membership has experienced an increase, from 26.2 per 100,000 members during the first period to 30.2 during the last. In other words, the observed relative decrease in the suicide mortality of the Royal Arcanum has fallen entirely upon that group of members which have been less than five years insured with the order, and the conclusions and recommendations of the special committee on suicide have, therefore, been fully established by subsequent experience. The resulting financial gain to the order has been considerable. Had the suicide mortality of less than five years' duration been at the same rate during 1899-1903 as the prevailing rate during 1893-1897, there would have been 105 more deaths from this cause than actually occurred. Assuming the average certificate to be $3,000, the sum of $315,000 was saved to the members of the order by a conservative policy, fully warranted by the facts in the case. The suicide experience of the Royal Arcanum conveys a most instructive lesson to ordinary life insurance companies.—*The Spectator,* June 30, 1904.

* The net increase in the total membership during 1893-1897 was 48,886, as against 79,518 during 1899-1903. In the latter period, therefore, the membership of less than five years' duration was undoubtedly larger than in the former.

THE SUICIDE RECORD OF 1904.

In fifty representative American cities during 1904 some 2,927 persons voluntarily terminated their own existence. No facts could be more significant or suggestive, nor a more definite symptom of social disease and unrest affecting all classes from pauper to millionaire, than this record of self-murder in fifty American cities during the course of a single year. But the official returns fall short of a complete statement of the facts, since there are always in addition cases of suicide not properly reported as such, but returned as accidents, etc. Reduced to a common basis, the suicide rate per 100,000 of population was 19.5 during the year 1904, or the highest rate since this annual tabulation was commenced with the returns for 1890. Applied to the total estimated population of American cities with 4,000 inhabitants or over, this rate represents an annual mortality from suicide of almost 6,000 persons among the urban population of this country. Since suicide falls almost entirely upon men of the ages twenty and over, the loss to life insurance companies, if a large proportion of these suicides are insured, must be very considerable. From year to year these tabulations have told the same story of an increasing propensity to self-murder among the population of the United States, from 12.0 per 100,000 in 1890 to 16.0 in 1900, and now to 19.5 in 1904. It is a question and a problem for the psychologist and student of human society to answer, why this tendency towards self-murder should persist under present-day conditions of exceptional prosperity, material well-being, and widely diffused wealth among the masses. It does not fall within the province of this article to discuss the social or economic aspects of the suicide problem, but merely to let the facts speak for themselves and indicate with unerring accuracy one of the most dangerous tendencies in modern American life, vitally affecting the interests of life insurance companies and their policy-holders. The time is rapidly approaching when the large majority of the white male adult population will be insured with life insurance companies operating on the ordinary or industrial plan, or with fraternal societies and other insurance institutions. The larger the proportion of insured population, the larger the interest in this problem, for every case of self-murder necessarily represents a needless loss in premiums and interest earnings to the companies and a resulting increase in the cost of insurance to the policy-holders.

The preceding table (omitted) shows the actual and relative mortality from suicide in each of the fifty cities for which the returns were furnished, first for the decade 1894-1903, and second, for the year 1904. Of the fifty cities considered, forty-one show an increase in the suicide rate, while only nine show a decrease.

The cities have been arranged in the order of their degree of suicidal frequency during the ten years 1894-1903. Hoboken stands at the head of the table, with a rate of 27.9 per 100,000 of population during the decade, against a rate of 16.8 for the fifty cities combined. The rate

increased to 37.9 during 1904. St. Louis returns the second highest average rate during the preceding decade, and an exceptionally high rate during 1903. It is quite improbable that this increase was due largely to the Exposition, although it is possible that, to a certain extent, this may have been the case. Of the first twelve cities showing a relatively high mortality from suicide, ten show an increase in the rate during 1904 as compared with the preceding decade, while only two, that is, Chicago and Brooklyn, show a decrease. The increasing proportion of Jews in the population of the old City of New York, that is, Manhattan Borough and the Bronx, no doubt, tends to lower the suicide rate on account of the well-known aversion of the people of Jewish faith to self-murder. The table shows that for the fifty cities combined the rate has increased from 16.8 per 100,000 during the decade 1894-1903 to 19.5 during 1904. Based, as these returns are, upon an aggregate city population of a little over fifteen million, they may be accepted as representative of urban conditions generally and as a trustworthy statement of the facts.

The second table shows the actual and relative mortality from suicide during the fifteen years 1890-1904 and also by quinquennial periods, together with a statement of the aggregate population of the fifty cities considered:

Suicide Mortality in Fifty American Cities—1890-1904.

Years.	Population.	Suicides.	Rates per 100,000 Population.
1890	9,991,388	1,201	12.0
1891	10,281,197	1,450	14.1
1892	10,580,205	1,404	13.3
1893	10,868,794	1,747	16.1
1894	11,236,263	1,764	15.7
1895	11,536,658	1,823	15.8
1896	11,874,439	1,922	16.2
1897	12,223,106	2,137	17.5
1898	12,589,311	2,199	17.5
1899	12,955,241	2,103	16.2
1900	13,339,324	2,133	16.0
1901	13,713,700	2,285	16.7
1902	14,145,534	2,418	17.1
1903	14,568,648	2,685	18.4
1904	15,007,329	2,927	19.5
1890–1894	52,957,847	7,566	14.3
1895–1899	61,178,755	10,184	16.6
1900–1904	70,774,535	12,448	17.6

It is shown by this table that while the suicide rate has fluctuated during individual years, there has been a gradual increase to a maximum point in 1904. During the first five years of the period the rate was 14.3, during the second 16.6, and during the third 17.6 per 100,000 of population. Whether the highest point has been attained and whether it may be safe to assume a more or less stationary condition in the future, it is impossible to foretell. A study of the suicide statistics of certain foreign cities does not, however, warrant an optimistic conclu-

sion, but rather sustains the anticipation of a still further increase in the mortality from suicide in this country in the future.

While international comparative vital statistics are always difficult of correct interpretation, and while they require to be used with extreme caution, it may be of interest to briefly consider the suicidal frequency in some of the principal foreign cities for which the returns are available. In the table which follows I have brought together the returns for six foreign cities and the corresponding data for six large American cities. The comparison is for the ten-year period 1894-1903, which has been divided into two groups of five years each, to show the relative changes in the rates during recent years:

The Mortality from Suicides in Foreign and American Cities—1894-1903.

Rates per 100,000 of Population.

Cities.	1894-1898. Suicides.	1894-1898. Rates.	1899-1903. Suicides.	1899-1903. Rates.	Inc.	Dec.
Berlin	2,393	27.8	2,570	27.0	.....	0.8
Paris	4,664	37.0	3,560	26.8	.....	10.2
Buenos Ayres	542	15.5	622	14.7	.....	0.8
Sydney	331	14.8	328	13.3	.....	1.5
London	2,258	10.3	2,541	11.2	0.9	.....
Amsterdam	115	4.8	121	4.6	.....	0.2
N. Y. City (Manhattan and Bronx)	1,969	21.6	2,374	22.5	0.9	.....
Chicago	1,706	23.9	2,053	23.1	.....	0.8
Boston	401	15.7	429	14.9	.....	0.8
Cleveland	218	13.2	306	15.4	2.2	.....
New Orleans	223	16.6	210	14.4	.....	2.2
Philadelphia	653	11.0	817	12.4	1.4	.....

The table brings out the fact that in five of the six foreign cities the suicide rate was lower during the last five years than during the preceding quinquennium. The decrease has been largest and most significant in the city of Paris, where there has been a decline from 37.0 during the first five years to 26.8 during the last. The lowest rate for any foreign city was for Amsterdam, indicating a relatively slight propensity to suicide among the Dutch population. The rate for London was relatively low, while the rates for Sydney and Buenos Ayres more nearly approach the average for American cities. The rates for London and Philadelphia are almost the same, while the rates for New York and Chicago are considerably above the average for American cities and closely approach the averages for Berlin and Paris. In the light of these facts it would seem that we may anticipate a still further increase in the suicide rate of American cities in the near future.

As a further contribution to a better knowledge of this subject, I add a table showing the suicide rates for each of the years 1894-1903 for the twelve cities considered in the last table, together with the average rates for the decade:

*The Mortality from Suicide in Large Cities—1894-1903.**

Rates per 100,000 of Population.

Cities.	Av. 1894-1903	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Paris	31.8	42.5	38.8	34.6	36.6	32.9	27.9	25.6	27.3	26.4	26.7
Berlin	27.4	30.0	26.6	28.7	28.2	25.6	24.8	23.0	27.2	29.4	30.6
Chicago	23.4	22.5	25.6	23.2	25.8	22.3	23.2	21.0	22.5	23.7	24.9
New York	22.0	18.2	21.2	20.8	23.2	23.9	21.7	24.4	22.3	21.0	23.0
New Orleans	15.5	17.4	15.6	21.3	14.7	14.4	16.3	13.9	11.0	15.8	14.9
Boston	15.3	12.1	15.5	17.7	17.6	15.5	18.6	13.5	15.1	14.1	13.4
Buenos Ayres	15.0	15.4	14.5	14.5	19.5	13.5	12.3	13.3	16.9	15.2	15.5
Cleveland	14.4	10.9	11.7	13.4	15.9	13.9	11.7	14.9	14.1	17.2	18.5
Sydney	14.0	14.4	14.1	13.1	16.8	15.2	17.2	12.1	12.2	10.3	14.7
Philadelphia	11.7	11.6	8.2	10.0	11.8	13.2	12.7	11.4	10.7	13.0	13.9
London	10.8	10.7	11.1	9.7	10.2	9.8	10.8	10.0	11.1	11.7	12.3
Amsterdam	4.7	5.6	4.2	5.1	5.8	3.3	4.3	2.1	4.5	5.6	6.3

According to this table the relative mortality from suicide was highest in Paris, or 31.8, and lowest in Amsterdam, or 4.7 per 100,000 population. The maximum rate was 42.5 for Paris in 1894, while the minimum rate was 2.1 for Amsterdam in 1900.

The last table fully confirms the earlier conclusion, that the suicide rate of American cities may be expected in time to increase and attain to, if not exceed, the average for certain sections of Europe, unless modern social and economic conditions, of which suicide is, in part at least, the result, should in the near future undergo a profound change for the better, which it is hopeless to expect. It is a rather serious reflection upon modern religious convictions and everyday morals that so little should be made in pulpit and press of the crime of self-murder and its relation to individual duty and its effect upon society as a whole. What was said with much truth many years ago, that "The suicide defrauds his Creator, and the sacrificed existence is a solemn trust betrayed," applies with even greater force to those who as policyholders in life insurance companies by this act of self-murder rob the funds accumulated by prudence and self-denial. Suicides in the large majority of cases are criminals in every sense of the word, and it has very properly been pointed out by Strahan that "It may be said that the bulk of the rational suicides of today is made up of those to whom the suicidal act is but the finish to a longer or shorter career of crime or immorality, or both." It is the duty of every life insurance company to so safeguard the interest of its policyholders that this opportunity for theft upon the funds should be reduced to the lowest possible minimum.—*The Spectator,* July 27, 1905.

* For San Francisco the corresponding rates were as follows: (1894-1903) 47.7; (1894) 38.0; (1895) 47.5; (1896) 45.6; (1897) 42.6; (1898) 45.9; (1899) 49.1; (1900) 49.9; (1901) 44.3; (1902) 56.5; (1903) 56.0.

THE SUICIDE RECORD OF 1905.

The suicide record of 1905 is somewhat remarkable, in that the rate declined to a point lower than during the preceding two years, a rather curious exception in a well-marked tendency toward an increase in the suicide mortality of American cities. The rate during the year was 18.2 per 100,000 of population, against 20.9 during the preceding year. The remarkable prosperity of the country, the small percentage of unemployed, the increase in wages and diminution in hours of labor, all combine to create conditions favorable to a decrease in the rate of self-destruction. At the same time, it is safe to assume that the decline is rather exceptional and not indicative of being the turning point, with the likelihood of a still further diminution of the suicide rate in the future.

The preceding table (omitted) shows the actual and relative mortality from suicide in each of the fifty cities for which the returns were available, and of this number thirty cities show an increase in the suicide rate per 100,000 of population, while nineteen cities show a decrease. This comparison could have been extended to include fifteen additional cities, but there would have been no substantial change in the results. The cities have been arranged in the order of their degree of suicidal frequency during the ten years 1895-1904. San Francisco stands at the head of the table, with a rate of 49.6 per 100,000 of population during the decade, against a rate of 17.9 for the fifty cities combined. The rate increased to 61.0 during 1905, or the highest rate on record for any American city, as far as the data have been made available. The rate for Hoboken was 29.2 for the ten-year period and the same during the year 1905. Hoboken has always held either first or second place in these tabulations, and usually the next city in order of importance has been St. Louis. The rate for St. Louis was 27.2 per 100,000 of population during the ten-year period and 28.0 during 1905. The rate for New York city decreased to 17.7 during 1905, against an average of 22.7 during 1895-1904. This decrease is probably to be explained in part by the increase in the proportion of Jews in the population of the old city of New York, that is, Manhattan Borough and the Bronx. The table shows that for the fifty cities combined the rate has increased from 17.9 per 100,000 during 1895-1904 to 18.2 during 1905. Based, as these returns are, upon an aggregate city population of a little over sixteen millions, they may be accepted as representative of urban conditions generally, and as a trustworthy statement of the facts.

As a further contribution to a better knowledge of this important subject, I add a table showing the suicide rates by five-year periods since 1871 for ten of the principal American cities for which the information is available:

Suicide Mortality in Ten Principal American Cities.
Five-Year Periods, 1871-1905.

	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-00.	1901-05.
New York (M. & B.)	14.0	12.3	14.9	16.4	18.7	22.9	21.7
Chicago	13.0	11.7	13.7	16.3	23.7	23.0	22.4
Philadelphia	7.3	6.9	8.9	9.1	10.1	11.8	13.8
St. Louis	8.0	15.5	21.8	21.9	24.6	26.6	28.0
Boston	9.8	10.5	11.0	10.5	14.1	16.6	13.6
Baltimore	5.9	5.5	7.1	8.1	10.0	11.4	12.9
Cincinnati	11.8	15.2	16.2	15.6	18.7	18.1	23.6
New Orleans	8.8	6.8	14.4	13.3	15.6	16.1	15.1
Newark	11.8	9.3	12.3	15.7	16.2	15.7	26.0
Providence	9.6	7.2	10.3	6.2	10.0	12.6	11.8

A report on mortality recently published by the census office contains some interesting data regarding the age distribution of suicides, which appear of sufficient value to warrant their incorporation in this article:

Suicide Mortality in the Registration Area of the U. S.
1900-1904.

	——Males.——		——Females.——		———Total.———	
Ages at Death.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
5-19	411	2.6	510	10.2	921	4.5
20-29	2,564	16.4	1,613	32.1	4,177	20.2
30-39	3,436	22.0	1,070	21.3	4,506	21.8
40-49	3,507	22.4	784	15.6	4,291	20.8
50-59	2,834	18.1	538	10.7	3,372	16.3
60-69	1,803	11.5	325	6.5	2,128	10.3
70-79	872	5.6	146	2.9	1,018	4.9
80 and over	217	1.4	34	0.7	251	1.2
Total known ages	15,644	100.0	5,020	100.0	20,664	100.0

According to this table, in the case of males, 44.4 per cent of all suicides occurred between the ages of 30 and 40. Among females the suicidal frequency falls upon earlier age periods, and according to the preceding table 53.4 per cent of all suicides among females occur between ages of 20 and 39. The table is suggestive, and illustrates the importance of suicide as a factor in life insurance deserving of serious consideration. While the rate for 1905 has slightly declined, the long-continued upward tendency of the suicide rate does not warrant, for the present at least, an anticipation of a further decline in the rate in the future. As I have often had occasion to point out, the actual mortality from suicide is greater than represented in the recorded statistics, since many deaths from self-murder are returned as accidents, homicides, cause unknown, etc. The record for 1905 confirms earlier investigations and re-emphasizes the importance of this subject from a life insurance point of view.—*The Spectator,* September 6, 1906.

THE SUICIDE RECORD OF 1906.

The downward tendency in the suicide rate of American cities, commented upon in my discussion of the suicide record of 1905, continued through 1906, and declined to 17.0 per 100,000 of population. The decrease in the rate was no doubt very largely the immediate result of the exceptionally satisfactory economic condition of the nation and the more general employment of even common labor at remunerative rates of wages. Of all suicides, a not inconsiderable proportion are always men, for some reason or other, out of employment or who find it difficult to obtain the kind of labor best suited to their taste or ability. Among other factors which, in part at least, are probably responsible for the decline in the rate, the most important is the more intelligent supervision and control in the sale of poisons, in particular of carbolic acid. Much, no doubt, could be done towards a reduction of the suicide rate by intelligent legislation which would make it more difficult to secure the most usual methods of self-destruction. The increasing attention which has been given to this subject within recent years, no doubt, has been followed by beneficial results in a number of individual cases. Another factor may be a possible over-estimate of the population of the more important cities, but no check can be had upon these calculations until the census returns for 1910 are available. A study of the suicide curve for a period of years, however, would seem to confirm the theory of a tendency towards points of high suicidal frequency which were attained in 1893, 1897 and 1904, followed by a rapid depression in the curve, and a still more rapid rate of increase during subsequent years, raising the point of maximum frequency above points previously attained. Thus the maximum rate in 1893 was 16.3, in 1897 it was 17.9, and in 1904 it was 20.3. In contrast, the minimum points during the last fifteen years have been 13.6 in 1892, 15.9 in 1895, 16.4 in 1900, and 17.0 in 1906. These observations comprehend the returns of sixty-five cities for a period of fifteen years, with an average population of about fifteen millions, among whom there occurred 36,439 recorded cases of self-murder. There can be no question of doubt, however, that the actual mortality from suicide is somewhat greater in that quite a number of deaths are reported as accidents or ill-defined cases of poisoning, etc., while even coroner's verdicts are often inconclusive in the absence of definite evidence to establish the fact of self-murder.

In my articles for previous years I have limited my observations, as a rule, to fifty American cities, but I have found it possible, through the co-operation of health officers and others, to secure additional information for fifteen other cities, so that the record of 1906 is for practically the entire urban area of the United States, or for sixty-five cities, with a total estimated population of more than seventeen millions:

TABLE A.—*Suicide Mortality in Sixty-five American Cities. 1896-1905 and 1906.*

Cities.	1896-1905. Suicides.	1896-1905. Rate per 100,000 Population.	1906. Suicides.	1906. Rate per 100,000 Population.	Rate of Increase or Decrease
San Francisco	1,803	52.2	141	37.9	—14.3
Hoboken	181	30.2	22	33.1	+ 2.9
St. Louis	1,596	27.4	207	31.1	+ 3.7
Oakland	170	24.9	30	37.0	+12.1
Chicago	3,962	22.7	385	17.5	— 5.2
N. Y. City (Manhattan and Bronx)	4,642	22.2	442	18.0	— 4.2
Milwaukee	632	21.8	67	20.0	— 1.8
Newark	540	21.6	79	27.4	+ 5.8
Cincinnati	673	20.6	89	25.8	+ 5.2
Indianapolis	308	17.6	33	14.7	— 2.9
Haverhill	66	17.3	11	23.1	+ 5.8
Concord	34	17.2	3	14.1	— 3.1
Brooklyn	2,017	16.9	204	14.0	— 2.9
Jersey City	352	16.8	32	13.4	— 3.4
New Haven	179	16.3	20	15.6	— 0.7
Cleveland	618	15.8	61	12.7	— 3.1
Washington	446	15.8	43	13.8	— 2.0
New Orleans	451	15.6	70	22.0	+ 6.4
Orange	38	15.6	4	15.5	— 0.1
Auburn	47	15.4	7	21.0	+ 5.6
Minneapolis	315	15.4	37	16.1	+ 0.7
Boston	856	15.0	64	9.9	— 5.1
St. Paul	241	14.6	32	17.3	+ 2.7
Quincy	53	14.5	3	7.6	— 6.9
Nashville	117	14.4	7	8.3	— 6.1
Pittsburgh	461	14.1	60	15.6	+ 1.5
Rochester	222	13.5	29	15.9	+ 2.4
Dayton	117	13.4	15	14.4	+ 1.0
Philadelphia	1,670	12.8	214	14.6	+ 1.8
Louisville	263	12.7	67	28.3	+15.6
Newport	28	12.6	4	17.0	+ 4.4
Hartford	100	12.2	22	21.6	+ 9.4
Providence	219	12.2	37	16.9	+ 4.7
Toledo	166	12.2	23	13.1	+ 0.9
Baltimore	618	12.0	80	14.3	+ 2.3
Erie	62	11.6	6	9.7	— 1.9
Bayonne	39	11.5	4	8.8	— 2.7
Springfield (Mass.)	73	11.5	12	15.5	+ 4.0
Bridgeport	83	11.4	13	14.6	+ 3.2
Passaic	34	11.4	4	8.5	— 2.9
Worcester	137	11.3	18	12.2	+ 0.9
Buffalo	395	11.0	68	15.9	+ 4.9
Gloucester	28	10.8	.....	.....	—10.8
Salt Lake City	57	10.5	15	24.7	+14.2
Altoona	41	10.4	4	8.8	— 1.6
Elizabeth	55	10.3	6	9.3	— 1.0
Brockton	42	10.2	7	13.9	+ 3.7
Reading	82	10.2	14	14.8	+ 4.6
Chelsea	34	9.9	1	2.7	— 7.2
Holyoke	45	9.7	5	9.4	— 0.3
Lowell	93	9.7	9	8.2	— 1.5
Cambridge	88	9.4	8	7.6	— 1.8
Lawrence	59	9.2	6	7.7	— 1.5
Manchester	53	9.2	6	9.0	— 0.2
Fitchburg	29	9.0	5	12.8	+ 3.8
Omaha	74	7.3	15	17.7	+10.4
Lynn	48	6.9	7	9.1	+ 2.2
Trenton	50	6.7	11	12.4	+ 5.7

Cities.	1896-1905. Suicides.	1896-1905. Rate per 100,000 Population.	1906. Suicides.	1906. Rate per 100,000 Population.	Rate of Increase or Decrease.
Johnstown	22	5.9	4	8.3	+ 2.4
New Bedford	36	5.7	8	11.1	+ 5.4
Camden	39	5.0	6	6.4	+ 1.4
Charleston (S. C.)	28	5.0	2	3.6	— 1.4
Elmira	18	5.0	6	15.4	+10.4
Somerville	29	4.6	1	1.3	— 3.3
Williamsport	5	1.7	4	13.4	+11.7
Average 65 cities	26,079	17.8	2,919	17.0	— 0.8

The preceding table shows the actual and relative mortality from suicide in each of the sixty-five cities and towns for which the returns were available. Of the aggregate number of communities, thirty-six cities show an increase, while twenty-nine show a decrease in the number of suicides in proportion to population. The range of the rate during 1906 was from 37.9 per 100,000 of population in San Francisco, to no suicides in Gloucester, Mass. The range in the average rate for the period ending with 1905 was from 52.2 for San Francisco, to 1.7 for Williamsport, Pa., but the rates fluctuate so considerably for individual years in the case of small communities that it is unsafe to arrive at broad generalizations. It must also be taken into consideration that large cities generally attract persons with suicidal intent from country districts, where the facilities for self-murder are less easily obtained. In quite a considerable number of cases persons contemplating self-destruction go to large cities and squander their financial resources and end their existence by gas poisoning or other means of self-destruction not readily available in country communities. These observations, however, do not invalidate the significance of the rates for certain cities, which year after year show a decidedly higher degree of suicidal frequency than other localities, and this is particularly true of San Francisco, Hoboken, St. Louis, Oakland, Chicago, New York, Milwaukee, Newark and Cincinnati. In all of these cities, according to the previous table, the average rates were in excess of twenty per 100,000 of population during the decade ending with 1905, and only four of these cities show a lower rate for 1906, while five of the cities show a material increase in the rate of suicidal frequency.

A summary of the suicide returns for individual years, together with the aggregate population of the cities under consideration, is set forth in the following table, for the period commencing with 1892 and ending with 1906. The table is self-explanatory and confirms previous observations regarding the periodical fluctuations in the rate, with a decided tendency toward minimum and maximum points of relative suicidal frequency:

TABLE B.—*Suicide Mortality in Sixty-five American Cities. 1892-1906.*

Years.	Population.	Suicides.	Rates per 100,000 Population.
1892	11,541,918	1,568	13.6
1893	11,862,348	1,937	16.3
1894	12,192,328	1,951	16.0
1895	12,535,743	1,992	15.9
1896	12,887,435	2,135	16.6
1897	13,250,791	2,372	17.9
1898	13,669,422	2,397	17.5
1899	14,014,422	2,327	16.6
1900	14,415,482	2,365	16.4
1901	14,829,438	2,489	16.8
1902	15,258,316	2,717	17.8
1903	15,701,501	2,998	19.1
1904	16,159,758	3,285	20.3
1905	16,643,724	2,987	18.0
1906	17,135,840	2,919	17.0
1892-1896	61,019,772	9,583	15.7
1897-1901	70,179,555	11,950	17.0
1902-1906	80,899,139	14,906	18.4

While the suicide rate has declined in the sixty-five cities considered in the aggregate, there are some very important exceptions. The rate during 1906, compared with the average for the preceding decade, increased in the following important cities: Hoboken, 2.9; St. Louis, 3.7; Oakland, 12.1; Newark, 5.8; Cincinnati, 5.2; Haverhill, 5.8; New Orleans, 6.4; Minneapolis, 0.7; St. Paul, 2.7; Pittsburgh, 1.5; Rochester, 2.4; Dayton, 1.0, and Philadelphia, 1.8.

For ten of the most important cities the returns are available for a longer period of time, and the rates of suicidal frequency, by five-year periods, have been as follows:

TABLE C.—*Suicide Mortality in Ten Principal American Cities. Five-Year Periods, 1872-1906.*

(Death Rates per 100,000 Population.)

	1872-76.	1877-81.	1882-86.	1887-91.	1892-96.	1897-01.	1902-06.
New York (M. and B.)	14.4	12.3	15.4	17.0	19.1	23.1	20.8
Chicago	13.0	12.6	13.9	17.7	24.0	22.9	21.3
Philadelphia	7.6	6.8	9.3	9.2	10.1	12.0	14.5
St. Louis	9.1	18.3	21.8	22.0	25.7	25.7	29.4
Boston	10.5	10.7	10.8	10.3	15.6	16.3	12.4
Baltimore	6.4	5.9	7.3	8.2	10.2	11.5	13.6
Cincinnati	13.0	15.5	16.3	15.6	19.2	18.7	24.4
New Orleans	8.5	8.6	14.1	13.5	17.1	14.0	17.3
Newark	13.2	9.3	13.3	15.0	15.8	19.1	25.6
Providence	9.3	7.9	8.8	8.7	9.1	11.7	13.5

With few exceptions, the rates prevailing during the last five years have been decidedly above the average for earlier periods. How far this result is to be attributed to improved methods of registration can not be even approximately estimated upon the basis of available information. The table, however, fully confirms previous investigations and illustrates the importance of suicide as an element of the general mortality, in particular of the adult male population of large cities, a majority of whom are today insured with industrial, ordinary or fraternal insurance companies or societies.

The importance of suicide as a factor in the experience of life and accident insurance companies is often under-estimated. The subject has been recently ably discussed by Vice-President Faxon of the Ætna Life, in an address on the Missouri suicide law, delivered at the twentieth annual convention of the International Association of Accident Underwriters. Mr. Faxon states that it had been his intention to embody in his paper some indication of the number of suicides occurring, in proportion to the population of Missouri, as compared with the number occurring in other States, but he found it impossible to secure the required data. While the preceding tables contain information regarding the suicide rate of St. Louis since 1872, I add a table giving the information for this city in detail for the last ten years:

TABLE D.—*Mortality from Suicide in St. Louis, Mo., 1897-1906.*

Year.	Population.	Suicides.	Rate per 100,000 Population.
1897	534,977	162	30.3
1898	548,057	171	31.2
1899	561,456	116	20.7
1900	575,238	130	22.6
1901	589,302	143	24.3
1902	603,710	142	23.5
1903	618,470	173	28.0
1904	633,591	227	35.8
1905	649,082	182	28.0
1906	664,952	207	31.1
1897-06	5,978,835	1,653	27.6

TABLE D2.—*Mortality from Suicide in St. Louis, Mo., 1907-1927.*

Year.	Population.	Suicides.	Rate per 100,000 Population.
1907	669,736	214	32.0
1908	674,520	214	31.7
1909	679,304	201	29.6
1910	688,872	199	28.9
1911	697,716	264	37.8
1912	706,560	245	34.7
1913	715,405	241	33.7
1914	724,250	269	37.1
1915	733,095	272	37.1
1916	741,940	207	27.9
1917	750,785	182	24.2
1918	759,630	136	17.9
1919	768,475	142	18.5
1920	777,320	128	16.5
1921	786,164	159	20.2
1922	795,008	159	20.0
1923	803,853	174	21.6
1924	812,698	168	20.7
1925	821,543	144	17.5
1926	830,000	178	21.4
1927	839,200	161	19.2

While there has not been the pronounced increase in the mortality from suicide in St. Louis which might have been expected, in view of the Missouri suicide clause, there is sufficient evidence—among others

the Blair case—to warrant the opinion that the law is a direct incentive to self-murder. As shown in a previous table for St. Louis, the average rate has persistently increased from 1872 to the present time, and contrasting the two terminal periods, the rate has changed from 9.1 per 100,000 of population during 1872-76 to 29.4 during 1902-06, and of the ten largest cities in the United States for which the information is available, St. Louis stands foremost in the propensity to self-murder. It is not necessary to further enlarge upon this point, but some additional data regarding suicide as a factor in the mortality experience of life insurance companies may be of interest. Some very suggestive information upon this point is to be derived from an analysis of the medical statistics of the Northwestern Mutual Life, which have been published in the last annual report of that company. The experience is for the entire history of the company, beginning with 1857 and ending with December 31, 1906. The table which follows shows the suicide mortality in proportion to the deaths from all causes at specified periods of life:

TABLE E.—*Suicide Mortality, Northwestern Mutual Life Ins. Co.—1857-1906.*

Ages.	Deaths From All Causes.	Suicides.	Per Cent. of Suicides at Each Age Period.
Under 20	39	2	5.1
20-29	2,265	57	2.5
30-39	5,225	190	3.6
40-49	6,674	237	3.6
50-59	6,624	183	2.8
60-69	5,660	68	1.2
70-79	3,366	13	0.4
80 and over	865	2	0.2
All ages	30,718	752	2.5

Leaving out of consideration the mortality at ages under twenty, the actual numbers being too small for a safe generalization, it appears that beginning with ages twenty to twenty-nine the percentage of suicide was 2.5, increasing to 3.2 during the next two decades of life, decreasing to 2.8 during the age period fifty to fifty-nine, and, finally, to 0.2 per cent at ages eighty and over. The general average has been 2.5 per cent of deaths from suicide in the mortality from all causes.

For the purpose of comparison I add a table showing the corresponding percentages for the Mutual Life of New York and the United States census of 1900:

TABLE F.—*Comparative Percentages of Suicide Mortality.*
(Per Cent of Deaths from All Causes at Specified Ages.)

Ages.	Northwestern Mutual Life.	Mutual Life of New York (Males).	U. S. Census 1900 (White Males).
15-19	5.1	2.6	0.7
20-29	2.5	3.0	1.7
30-39	3.6	3.3	2.2
40-49	3.6	3.3	2.4
50-59	2.8	2.6	1.7
60-69	1.2	1.2	1.0
70-79	0.4	0.4	0.5
80 and over	0.2	.....	0.2
All ages	2.5	2.2	1.4

The comparison is interesting and indicates a larger proportion of deaths from suicide among the insured than among the general population. At ages thirty to fifty-nine the percentages are higher for the Northwestern than for the Mutual Life of New York, probably on account of the larger proportion of Germans among the policyholders of the Northwestern. As is well known, the German population has a decided propensity for suicide, in marked contrast to the Irish, both in Ireland and in the United States. The table would appear to confirm the conviction that there is an element of adverse selection sufficient to affect the mortality experience of even the most conservative life insurance companies in the United States. There can be no question of doubt that the Missouri statute is contrary to public policy and is opposed to the interests of the policyholders. The usual limitation of two years would appear to be sufficiently liberal to protect the interest of all bona fide insurers, and a departure from this rule is nothing short of being an encouragement to self-destruction. This point was recognized at least as early as 1843, when English Friendly Societies were censured because of too much liberality in the payment of suicide claims, which, it was held, was an inducement to the crime of self-destruction. While, for the time being, the suicide rate of American cities is somewhat below the average for the preceding decade, there is every reason to believe that the rate will assume an upward tendency in the near future, and that the maximum point to be attained will be above the rate for 1904.—*The Spectator,* September 5, 1907.

THE SUICIDE RECORD OF 1907.

The suicide record of American cities for 1907 presents some exceptionally interesting features in continuation of the annual analysis for previous years. The year has been a memorable one in American economic history, with abnormal conditions resulting from the financial panic and industrial depression, emphasized by widespread want of remunerative employment and a reduction in wages. There has been a sharp rise in the suicide rate of American cities, from 17.1 in 1906 to 18.1 per 100,000 of population in 1907. This rise is in marked contrast to the observed decline in the rate during the previous two years, commented upon at some length in the review for 1906, where it, however, was anticipated that the rate would probably undergo an unfavorable change with a decline in the economic well-being of the nation. An extensive analysis of individual cases of suicide would be necessary to sustain this view of a close relation between the suicide rate and economic conditions, but even a casual reading of the daily records of self-murder cases, as reported in the newspapers, connects a considerable number of suicides with unemployment, bank failures, defalcations, and other crimes. The real causes of suicide are, in all probability, quite at variance with the alleged causes, based upon conflicting evidence and not upon a thorough investigation of antecedent conditions, including the physical and mental health of the suicide and possible changes in material circumstances previous to the commitment of the act. Suicide remains one of the most perplexing mysteries of modern life, and a subject which, from an insurance point of view, demands qualified and serious consideration.

The record for 1907 includes the suicide returns of sixty-five American cities, with an estimated population of 17,763,000. In this group of cities, which practically includes the entire urban area of the United States, there occurred during the year 3223 suicides, equivalent to a rate of 18.1 per 100,000 of population. The data have been arranged in tabular form (omitted).

The summary of the suicide returns for individual years, together with the aggregate population of the cities under consideration, is set forth in the next table, for the fifteen-year period ending with 1907. The returns have also been grouped in five-year periods, to emphasize more clearly the increase in the rate in conformity to the law of large numbers, to eliminate minor fluctuations during individual years.

Suicide Mortality in Sixty-Five American Cities—1893-1907.

Year.	Population.	Suicides.	Rate per 100,000 of Population.
1893	11,862,348	1,937	16.3
1894	12,192,328	1,951	16.0
1895	12,623,983	1,999	15.8
1896	12,977,870	2,155	16.6
1897	13,343,473	2,392	17.9
1898	13,764,406	2,420	17.6
1899	14,111,764	2,346	16.6

Year.	Population.	Suicides.	Rate per 100,000 of Population.
1900	14,515,269	2,374	16.3
1901	14,931,699	2,518	16.9
1902	15,363,121	2,748	17.9
1903	15,808,700	3,035	19.2
1904	16,269,817	3,329	20.5
1905	16,756,515	3,033	18.1
1906	17,251,420	2,956	17.1
1907	17,763,798	3,223	18.1
1893–1897	63,000,002	10,434	16.6
1898–1902	72,686,259	12,406	17.1
1903–1907	83,850,250	15,576	18.6

According to this table the highest suicide rate was attained during 1904, when it reached 20.5, while the lowest rate prevailed in 1895, when it fell to 15.8. During the three five-year periods the rate has ranged from 16.6 per 100,000 of population during the first five years, to 17.1 during the second five years, and to 18.6 during the third. During the whole period nearly 40,000 suicides have occurred in the group of cities under consideration.

The practical aspects of the suicide problem, with special reference to life insurance requirements, have only received a very limited amount of qualified medical and other consideration. The most recent treatise on life insurance examinations disposes of the subject in a dozen lines, without a single useful suggestion as to how insurance companies can most effectually safeguard themselves against this menace of needless mortality losses. Much is made by some writers of the assumed heredity of suicide, but the facts are wanting to prove the heredity of an act which, in all probability, results often from mere suggestion or imitation on the part of members of the same family. Such imitation is sufficiently frequent to warrant insurance companies in declining to accept risks with a well-established history of suicide, unless the age of greatest suicidal frequency has been safely passed. Of great practical value are the investigations of Heller, and others, who have performed autopsies on suicides, demonstrating by the evidence of pathological lesions that a considerable proportion, or nearly fifty per cent, of the suicides had, in all probability, been mentally irresponsible. Equally suggestive is the apparently well-established connection between syphilis and suicide, or other sexual diseases and derangements, admitted to be of much more frequent occurrence than generally assumed. The investigations of Pilgrim, for many years the superintendent of the Hudson River State Hospital, also quite intimately connect suicide with mental irresponsibility, at least in such cases as come under observation in institutions for the treatment of the insane. A very careful analysis of two hundred suicides of women, by Dr. H. Stelzner, a woman physician, in the Royal Charity Hospital of Berlin, indicates the method which is likely to be practically of the greatest value to determine the antecedent conditions and circumstances, mental as well as physical, which more or less favor attempts at self-murder. An equally intimate connection which, in all probability, exists between alcoholism and

suicide, and which has been treated at considerable length in a monograph by Prinzing, is denied by Gould, but not disproven. A distinct addition to our knowledge and better understanding of the suicide problem has been made by Dr. George M. Gould of Philadelphia, who connects many cases of suicide with visual defects, resulting first in eye-strain, and second in serious pathological lesions of the brain. Gould, in an article on the mysteries and sources of suicide, published in *The Medical Record* in 1906, emphasizes the role of venereal diseases in suicide, and he also draws attention to spinal curvature as an evidence of morbid conditions resulting from back-strain, caused by visual defects, not at all difficult of determination. Gould examined a large number of alleged causes of suicide which, upon further consideration, in the light of his own experience, could be reduced to the single factor of eye-strain as the probable cause of mental depression, chronic headaches, nervous collapse, insomnia, etc. In the opinion of Dr. Pronger, an English authority, eye-strain patients quite frequently have confessed to having been on the verge of suicide, and, in his opinion, "errors of refraction are responsible for a large proportion of the suicides occurring daily."*

The researches of Gould, and others, are of great practical value, as an aid in the effort towards a better understanding of the underlying causes and conditions, both mental and physical, which promote an act which in itself is contrary to human reason and the instinct of self-preservation. Suicide occurs with increasing frequency among the well-to-do, and even among the rich, who from a worldly point of view, have all the means at their command to make life worth living, yet, in the midst of wealth and power, for apparently inscrutable reasons, terminate their own existence, often while still in the prime of life. Contrary to the accepted theory, suicide is not as common among the poor as their unhappy condition would seem to suggest, and, in fact, the investigations of Dr. Orlando F. Lewis of suicide attempts treated at Bellevue Hospital, show that "destitution seems to play a very small part in leading persons to attempt suicide," and in only two out of forty-three cases was the attempt directly traced to poverty, and in only four cases was the patient out of employment, without this being itself proven to be the cause of the attempt. It is evident that efforts to substitute facts for guesswork opinion on the subject of suicide must fall within these lines of qualified research and include a painstaking and strictly scientific analysis of a large number of individual cases, rather than efforts to determine the underlying causes by the statistical analysis of suicide frequency in the mass. The observed rise in the suicide rate during 1907 warrants the opinion that the increase during 1908 will be even more pronounced than during the year under review.—*The Spectator,* October 1, 1908.

* Biographic Clinics, by Geo. M. Gould, M. D., Vol. V, Chap. XIV, Phil., 1907. Blakiston Son & Co.

THE SUICIDE RECORD OF 1908.

An article on suicide in a standard encyclopedia on social questions begins with the statement that "suicides *seem* to be on the increase." My annual tabulation, published for some years in *The Spectator,* of the suicide record of American cities, leaves no question of doubt that suicides *are* on the increase, and the record for 1908 proves that during last year the rate was higher than during any previous year for which at least approximately accurate data are available. Against a rate of 18.8 per 100,000 of population in 1907 the rate for 1908 was 21.8, or higher by over one point than the exceptionally high rate for 1904 of 20.7. The increase in the rate for 1908 was 3 per 100,000 of population over the rate for 1907, and the actual increase in the number of suicides during the year was 601, or 18.5 per cent, while the corresponding increase in the population during the same period of time was only 2.3 per cent. The tabulation includes sixty-five representative American cities with an estimated population of about seventeen and a half millions. The census for 1910 will afford an opportunity to correct population estimates for intercensal years, and as the result of such correction the actual rate may, in fact, be higher than the apparent rate, which is based on the assumption that the increase in population has been at the same rate as during the last intercensal decade. From every point of view—moral, social and economic—the increase in the suicide rate is one of the most alarming and suggestive phenomena of the present day. The following table (No. 1) shows the actual and relative mortality from suicide in each of the sixty-five cities and towns for which the returns could be secured:

TABLE I.—*Suicide Mortality in Sixty-five American Cities—1898-1908.*

	1898-1907.		1908.		
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Rate Increase or Decrease.
San Francisco	1,792	50.6	211	55.8	+ 5.2
Oakland	233	32.6	54	66.2	+33.6
Hoboken	182	29.1	26	37.6	+ 8.5
St. Louis	1,707	28.2	215	31.9	+ 3.7
Denver	347	24.7	57	36.6	+11.9
Newark	634	24.0	75	24.3	+ 0.3
Haverhill	83	22.4	11	28.8	+ 6.4
Milwaukee	668	22.4	86	26.1	+ 3.7
Chicago	4,031	21.9	500	23.0	+ 1.1
Cincinnati	708	21.3	86	24.6	+ 3.3
New York (Manhattan and Bronx)	4,710	20.8	644	23.7	+ 2.9
Indianapolis	341	18.5	52	23.6	+ 5.1
Auburn	54	17.5	11	34.3	+16.8
New Haven	200	17.4	20	15.5	— 1.9
Concord	35	17.3	3	13.8	— 3.5
Jersey City	374	17.0	54	21.7	+ 4.7
Louisville	365	16.9	51	21.3	+ 4.4
Orange	42	16.7	3	11.0	— 5.7
Cleveland	676	16.4	95	19.9	+ 3.5

	1898-1907.		1908.		
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Rate Increase or Decrease.
Brooklyn	2,089	16.2	262	16.9	+ 0.7
New Orleans	482	16.2	92	28.5	+12.3
Washington	463	15.9	66	20.8	+ 4.9
Pittsburgh	540	15.8	111	28.6	+12.8
Boston	862	15.0	127	20.6	+ 5.6
Rochester	255	14.8	43	22.3	+ 7.5
Quincy	55	14.7	5	12.5	— 2.2
Dayton	133	14.6	19	18.2	+ 3.6
Nashville*	117	14.3	1	1.2	—13.1
Providence	261	14.0	53	24.9	+10.9
St. Paul	256	13.9	35	15.3	+ 1.4
Bridgeport	104	13.6	15	16.9	+ 3.3
Minneapolis	329	13.6	52	16.4	+ 2.8
Hartford	116	13.4	21	20.8	+ 7.4
Philadelphia	1,821	13.4	264	17.7	+ 4.3
Salt Lake City	74	13.3	24	39.7	+26.4
Newport	31	13.1	1	3.7	— 9.4
Worcester	158	12.9	23	17.2	+ 4.3
Baltimore	673	12.8	98	17.2	+ 4.4
Toledo	185	12.8	30	17.4	+ 4.6
Buffalo	462	12.7	50	12.8	+ 0.1
Reading	104	12.4	12	12.6	+ 0.2
Brockton	54	12.3	5	9.5	— 2.8
Springfield, Mass.	82	12.1	18	22.4	+10.3
Fitchburg	38	11.9	7	20.6	+ 8.7
Passaic	39	11.9	5	11.4	— 0.5
Erie	64	11.5	10	16.0	+ 4.5
Holyoke	55	11.5	9	17.2	+ 5.7
Lawrence	73	11.0	7	9.4	— 1.6
Altoona	45	10.9	2	4.4	— 6.5
Gloucester	28	10.7	4	15.4	+ 4.7
Elizabeth	58	10.3	11	16.8	+ 6.5
Bayonne	38	10.2	5	10.4	+ 0.2
Cambridge	96	10.2	13	12.9	+ 2.7
Omaha	93	10.0	17	23.5	+13.5
Manchester	59	9.8	9	13.4	+ 3.6
Lowell	88	9.3	11	11.6	+ 2.3
Lynn	58	8.0	11	13.4	+ 5.4
Elmira	26	7.4	4	11.7	+ 4.3
Trenton	58	7.4	19	20.9	+13.5
Johnstown	28	7.1	2	4.2	— 2.9
Camden	52	6.6	8	9.1	+ 2.5
New Bedford	40	5.8	6	7.4	+ 1.6
Williamsport	14	4.8	2	6.7	+ 1.9
Charleston, S. C.	25	4.6	4	7.1	+ 2.5
Somerville	30	4.6	6	8.1	+ 3.5
Average 65 cities	28,013	18.1	3,853	21.8	+ 3.7

In 54 of the cities the rate for 1908 showed an increase in the suicide rate over the previous year, against 48 such cities in 1907; in only 11 cities during 1908 was there a decrease. In other words, the increase in the rate was practically general, although not uniform, throughout the country. The increase in the rate was greatest in Salt Lake City, but the highest rate during the year (66.2) occurred in Oakland, Cal., the

* Suicide by poison only.

same as in 1907. The average rate for the ten-year period (1898-1907) was highest for San Francisco (50.6), followed by Oakland (32.6), Hoboken (29.1), St. Louis (28.2), and Denver (24.7). The table itself is self-explanatory, and requires no extended analysis.

A summary of the suicide returns for each year since 1894, together with the aggregate estimated population of the cities under consideration, is set forth in the next table for the fifteen-year period ending with 1908. The returns have also been grouped in five-year periods to emphasize more clearly the increase in the rate, in conformity to the law of large numbers, to eliminate minor fluctuations during individual years.

According to this table, the average suicide rate in sixty-five American cities has increased from 16.8 per 100,000 of population during 1894-1898 to 17.5 during 1899-1903, and finally to 19.5 during the five years ending with 1908. The rate was lowest during the years 1895, when it was 15.8 per 100,000, and highest, as previously stated, during 1908, when it attained to 21.8 per 100,000.

TABLE II.—*Suicide Mortality in Sixty-five American Cities—1894-1908.*

	Population.	Suicides.	Rate per 100,000 of Population.
1894	12,192,328	1,951	16.0
1895	12,623,983	1,999	15.8
1896	12,977,870	2,155	16.6
1897	13,343,473	2,392	17.9
1898	13,764,406	2,420	17.6
1899	14,111,764	2,346	16.6
1900	14,515,269	2,374	16.3
1901	14,908,694	2,524	16.9
1902	15,302,873	2,747	18.0
1903	15,697,237	3,034	19.3
1904	16,096,796	3,329	20.7
1905	16,488,700	3,032	18.4
1906	16,881,507	2,955	17.5
1907	17,276,669	3,252	18.8
1908	17,675,922	3,853	21.8
1894–1898	64,902,060	10,917	16.8
1899–1903	74,535,837	13,025	17.5
1904–1908	84,414,594	16,421	19.5

When the sixty-five cities are arranged according to size it is brought out that the degree of suicidal frequency is lowest in the small cities and highest in the large cities. During the ten-year period ending with 1907 the suicide rate was 12.4 per 100,000 of population in cities with less than 50,000 inhabitants; it was 14.2 in cities with from 50,000 to 250,000 inhabitants, and 19.4 in cities with more than 250,000 population. During 1908 the relative position was practically the same, or 13.1 for the first group, 19.8 for the second, and 22.7 for the third. Comparing 1908 with the average for the preceding decade, the suicide rate increased 0.7 per 100,000 in the small cities, 5.6 in the middle group, and 3.3 in the group of large cities. The increase was, therefore, relatively greatest in the cities with from 50,000 to 250,000 inhabitants.

TABLE III.—*Suicide Mortality in Sixty-five American Cities, 1898-1908 (Cities Classified by Size).*

Cities with Population of	Number of Cities.	1898-1907. Suicides.	1898-1907. Rate per 100,000 Population.	1908. Suicides.	1908. Rate per 100,000 Population.	Increase or Decrease.
Under 50,000	14	556	12.4	65	13.1	+0.7
50,000 to 250,000	34	4,810	14.2	754	19.8	+5.6
250,000 and over	17	22,647	19.4	3,034	22.7	+3.3
Average 65 cities	....	28,013	18.1	3,853	21.8	+3.7

When the cities are grouped according to geographical location it appears that the rate during the decade ending with 1907 was 15.9 per 100,000 of population for cities in the North Atlantic States, 20.3 for cities in the North Central States, 14.5 for cities in the Southern States, and 27.7 for cities in the Western States. For 1908 the relative position is practically the same. The rate was 19.5 for cities in the North Atlantic States, 22.6 for cities in the North Central States, 19.6 for cities in the Southern States, and 33.8 for cities in the Western States. If the rates for 1908 are compared with the average for the preceding decade the increase is shown to have been 3.6 in the North Atlantic cities, 2.3 in the North Central cities, 5.1 in the Southern cities, and 6.1 in the Western cities. According to this analysis, the degree of suicidal frequency was, therefore, highest in the cities of the Western States, where there was also the most pronounced increase in the rate.

TABLE IV.—*Suicide Mortality in Sixty-five American Cities, 1898-1908 (Cities Classified by Geographical Location).*

Geographical Location.	Number of Cities.	1898-1907. Suicides.	1898-1907. Rate per 100,000 Population.	1908. Suicides.	1908. Rate per 100,000 Population.	Increase or Decrease.
North Atlantic cities	43	14,258	15.9	2,003	19.5	+3.6
North Central cities	8	6,797	20.3	873	22.6	+2.3
Southern cities	6	2,125	14.5	312	19.6	+5.1
Western cities	8	4,833	27.7	665	33.8	+6.1
Average 65 cities	....	28,013	18.1	3,853	21.8	+3.7

An analysis of individual cases of suicide would seem to sustain the conclusion that the increase in suicidal frequency affects particularly the well-to-do, prosperous and better-educated elements of the population rather than the unfortunate, the ignorant and the poor. Such a study of individual cases also reveals the fact of a close connection between suicide and crime in all its phases, particularly, however, crimes of a more serious character committed by men in high positions of responsibility, where the only alternative to escape punishment is the termination of life by self-murder. Finally, there is positive evidence of mental and physical deterioration, and in part at least, among those who have come from the country to live in the cities and to whom the intensity of city life, its opportunities for excitement and temptation, prove disastrous, causing mental unbalance, nervous diseases and material, moral and spiritual discontent. A study of any considerable number of individual cases of suicide does not confirm the view that real progress is being made as the result of modern educational methods and the vast increase in material prosperity, well-being and comfort, but it leads

rather to adverse conclusions and the conviction that there is a positive increase in the so-called diseases of the will. As bearing upon the physical, psychological and economic aspects of the suicide question the following cases, briefly cited, will prove of interest. They have been selected at random from occurrences during the period 1906-09:

1. Frank K. Hipple, president of the Philadelphia Real Estate Trust Company, alleged to have been short $7,000,000 in his accounts, committed suicide after discovery of extensive frauds practiced for a period of years.

2. L. M. Underwood, professor of botany at Columbia University, after attempting to kill his wife and daughter, committed suicide by a method not stated. He was one of the most prominent members of the Botanical Society of America and an ex-president of the organization.

3. Samuel L. Bear, head of an insurance firm, committed suicide by hanging, having been afflicted with heart trouble and otherwise suffering from ill-health for some years past.

4. Richard F. Walsh, lieutenant of the Brooklyn police department, committed suicide by shooting, for reasons unknown.

5. Howard Maxwell, formerly president of the Brooklyn Borough Bank, facing imprisonment for twenty-five years if convicted on three charges of forgery and grand larceny brought against him by the Kings County Grand Jury, committed suicide by cutting his throat, after spending four days in the Raymond street jail in default of bail.

6. David Willcox, ex-president of the Delaware & Hudson Railroad Company, committed suicide by shooting at sea on a North German Lloyd steamer just after the vessel had passed through the Narrows. He had been known to be in ill-health, but the true cause of the suicide was never brought out.

7. Lieut. John W. Crawford, U. S. N., secretary to Admiral Dewey, committed suicide by jumping from a ferry boat, apparently on account of financial troubles.

8. G. W. Delamater, once a leader in Pennsylvania State politics, killed himself by shooting, apparently on account of melancholia because of the death of his son a month previous, but actually for reasons never clearly determined.

9. Ensign Alfred T. Brisbin, U. S. N., of the cruiser "Tacoma," while at Havana shot himself with suicidal intent, apparently on account of a personal matter involving serious consequences if brought to trial, but the facts were never fully determined.

10. Mack Richardson, first lieutenant, Twenty-sixth Infantry, committed suicide at San Antonio, Tex., by taking morphine and prussic acid, after his resignation had been accepted by the President. The reasons for the act were personal, apparently involving serious consequences arising out of an unfulfilled promise of marriage.

11. John H. Adams, chief of police of Newark, N. J., committed suicide by shooting himself, the reason for the act being stated to have been worry over his indictment for malfeasance in office.

12. Howard P. Frothingham, a well-known loan broker and call-money man on the Stock Exchange, committed suicide by throwing himself out of a second-story window while ill with neurasthenia. He had had matrimonial difficulties, but the true cause of the act was not determined.

13. F. A. Burnham, one time president of the Mutual Reserve Life Insurance Company, committed suicide by gas inhalation. Mr. Burnham had been indicted by the Grand Jury for grand larceny and forgery, but the case had not been brought to trial when the act was committed.

14. Eugene W. Guindon, president of Fuller's Express Company and a veteran of the Civil War, committed suicide by shooting, the only apparent motive being ill-health. The true cause of the act was not determined.

15. Frank W. Cutting, for forty years connected with the Worcester Mechanics Savings Bank, and for seven years its treasurer, committed suicide, apparently while temporarily insane.

16. Albert G. McDonald, president of the Brooklyn Bar Association and a former corporation counsel of the old city of Brooklyn, died suddenly from an overdose of drugs taken to induce sleep. There were reasons to believe, however, that the death was self-inflicted.

17. Francis T. Roots, president of the First National Bank of Connersville, Ind., committed suicide by shooting, apparently on account of ill-health.

18. Second Lieut. John J. Moller of the Ninth Infantry, U. S. A., while stationed at the Presidio, Monterey, Cal., shot himself, for reasons which were never clearly determined. He had served in the Philippines, was about thirty years of age, and a splendid type of robust young army officer, devoted to athletics and outdoor sports.

19. Col. J. C. Roney, the wealthiest man in southwestern Georgia, a resident of Americus and highly connected, killed himself by shooting. The act was committed in the presence of his wife, and for reasons not disclosed.

These cases are not exceptional in their nature, but they are quite representative of a fair proportion of the suicides which occur in American cities at the present time. They emphasize the important conclusion that suicides are common in every strata of society, including the prosperous and well-to-do, who, under modern conditions, are seldom without life insurance protection, and the suicide of whom, therefore, may impose a heavy burden upon the insuring company. Evidence like the foregoing cases, taken together with the conclusive proof of a material increase in the degree of suicidal frequency, should suggest to all life insurance companies particular care and conservatism in the framing of the suicide clause of their policies, for it will always be a

difficult matter to safeguard against suicide in life insurance experience by improvements in the method of risk selection, although such improvements are possible by a more careful consideration of the true and complete family and personal records of the applicant.—*The Spectator,* November 4, 1909.

THE SUICIDE RECORD OF 1909.

The probable annual number of suicides in the United States during 1909 may be conservatively placed at not less than 12,500. The government vital statistics for the registration area, which includes about one-half of the whole population, return 8,332 suicides for 1908, or 18.5 per 100,000 of population. The registration area, however, includes all of the large cities, in which the suicide rate is higher than in the rural districts, although the difference in the rate is not as pronounced as is generally assumed. In 1908 the suicide rate in the registration cities of the registration States was 20.4 per 100,000, while the rate for the rural districts of the registration States was 14.4. The population of the registration area was 45,029,000, and among this number there occurred 8,332 suicides during 1908, or as previously stated, 18.5 per 100,000 of estimated population. Assuming that a rate of only ten per 100,000 of population prevailed among the 41,845,000 of estimated population in the non-registration area (including a large negro population), the probable number of suicides in this area would be 4,185, which in addition to the 8,332 in the registration area gives a total of 12,517 suicides for the whole United States for 1908.

The returns for 1908 are the latest available data published by the Division of Vital Statistics of the Census Office. The returns for 1908, which have only recently been published, are of considerable interest in connection with the discussion of the tendency of the suicide rate in the United States. The census suicide rates for the urban and rural sections of the registration States during 1904-08 are as follows:

Comparative Suicide Rates of the Registration States of the United States, 1904-08.
(Rates per 100,000 of Population.)

Year.	Urban.	Rural.
1904	13.9	10.1
1905	15.0	11.6
1906	15.2	10.7
1907	17.2	12.3
1908	20.4	14.4

This comparison sustains the very conservative assumption that the probable suicide rate in the non-registration area is not less than ten per 100,000 of population, and that, therefore, the estimated total number of suicides in the United States during 1908 was not less than 12,500. The urban suicide rate for the registration States is somewhat below the suicide rate of the principal American cities considered as a group in the suicide record of *The Spectator* for 1908. *The Spectator* rate for that year was 21.8 per 100,000, while the rate for the registration cities in registration States was only 20.4, and for the total registration area only 18.5. Since *The Spectator* rates are secured by special correspondence with the health officers of all the principal cities, they are possibly a more accurate expression of the urban suicide rates than the corresponding rates for registration cities as returned by the census. In any event the differences are not very pronounced. For life insurance

purposes the large cities are of relatively greater importance, since most of the risks in force are as yet chiefly concentrated in the urban centers. It is possible, however, as has occasionally been pointed out, that persons of suicidal tendency living in country districts go to the cities to end their existence, partly, no doubt, on account of better facilities in obtaining poison, weapons, or gas, etc., and partly for the purpose of hiding their identity.

The method of suicide has an important bearing upon the subject in its larger aspects, for suicides are unquestionably, to a considerable extent, the result of suggestion. Granted convenient or easy facilities for self-murder, the deed is done before there has been time for reflection. It is nothing short of an indictment of our sense of community responsibility that facilities for suicide should be as common as they are. Regardless of efforts which have been made to suppress the sale of poisons and weapons, there is nothing easier than to secure the means of self-murder at a convenient drug store, hardware store, pawnshop, etc., as the case may be. In fact, an examination of the pistols or revolvers with which a very large number of suicides have been committed in Philadelphia, and which are on exhibition in the Coroner's office, proves that most of the weapons are cheap affairs, probably bought in pawnshops for a few dollars, including the necessary small amount of ammunition. The importance of these observations are emphasized in the following table of the suicidal rate, by method, in the United States during the five years ending with 1905 on the basis of 100,000 population. The general suicide rate in the registration area for this period was 14.0 per 100,000, and in detail, according to the several causes, was as follows:

Methods of Suicide in the United States, 1900-05.
(Rates per 100,000 of Population.)

	Rate.
Poisons	4.8
Firearms	3.4
Hanging	2.1
Asphyxiation	1.1
Cutting	0.8
Drowning	0.7
Jumping from high places	0.2
Crushing	0.1
Other means	0.8
Total	14.0

According to this analysis over one-half the suicides were by poison or firearms, the sale of which should be a matter of much more efficient control than is at present the case. It is nothing short of a public scandal that poisons and pistols should be as easily obtainable as is actually the case, and there is the most urgent necessity for the enactment of statutes forbidding the keeping or carrying of deadly weapons and of regulating their sale under most stringent regulations and heavy penalties. The same is true of poisons, which are sold with an utter disregard of the public interest and often with a practical certainty that they will be used for improper purposes. The effect of drastic

regulation and prohibition in regard to the sale of poisons and deadly weapons would be not only materially to diminish the suicide rate, but it would also bring about a material reduction in the homicidal rate, which, as is well known, is probably higher in this country than in any other country in the world. It requires always to be kept in mind that as a first principle in psychology the matter or propinquity in the case of disturbed mental condition is of the utmost importance. Granting that there are no convenient or easily available methods of suicide, the more difficult methods will only be adopted where the suicidal tendency is really persistent and due to profound underlying mental, moral or physical causes.

In forty-two of the cities the rate for 1909 showed an increase in suicides over the previous year against fifty-four such cities in 1908. In the remainder there was a decrease in the rate, but with few exceptions the cities were comparatively small, and the actual decrease in the rate was of relatively slight significance. The increase in the rate was greatest in Denver, or 22.2 followed by Salt Lake with 22.1, and Hoboken with 22.0. The highest actual rate during 1909 prevailed in San Francisco, or 59.9 per 100,000 of population, followed by Oakland, Cal., with 55.1, Hoboken with 52.6, Denver with 48.6, and Salt Lake City with 39.1. The highest average rate for the decade ending with 1908 prevailed in San Francisco, or 51.6, followed by Oakland with 36.6, Hoboken with 30.6, St. Louis 28.3, Denver 26.4, Newark, N. J., 24.6, Haverhill 23.7, Milwaukee 22.7, Chicago 21.9, Cincinnati 21.8, and New York (Manhattan and the Bronx) 20.9. The relative positions of the cities with high suicide rates is maintained with remarkable regularity from year to year, and it is significant that most of the cities returning the highest rates contain a proportionately large Teutonic population.

During the ten years ending with 1908, in the sixty-five American cities for which the returns are available, there have occurred 29,446 suicides, at the average rate of 18.5 per 100,000 population. During 1909, in the sixty-five cities there occurred 3732 suicides, or at the rate of 20.6 per 100,000 of population. When the year 1909, therefore, is compared with the average for the preceding decade there was an increase in the rate of 2.1 per 100,000 of population.

The tendency in the suicide rate is more clearly brought out by the following comparison of the suicide mortality in sixty-five American cities, 1890-1909. The table which follows gives the estimated population and number of suicides each year, and the rates per 100,000 of population for single years and for five-year periods in the form of a convenient summary:

Suicide Mortality in Sixty-five American Cities.—1890-1909.

	Population.	Suicides.	Rate per 100,000 Population.
1890	10,903,441	1,343	12.3
1891	11,202,985	1,585	14.1
1892	11,512,200	1,563	13.6
1893	11,831,346	1,935	16.4
1894	12,192,328	1,951	16.0
1895	12,623,983	1,999	15.8
1896	12,977,870	2,155	16.6
1897	13,343,473	2,392	17.9
1898	13,764,406	2,420	17.6
1899	14,111,764	2,346	16.6
1900	14,515,269	2,374	16.3
1901	14,908,694	2,524	16.9
1902	15,302,873	2,747	18.0
1903	15,697,237	3,034	19.3
1904	16,091,796	3,329	20.7
1905	16,488,700	3,032	18.4
1906	16,881,507	2,955	17.5
1907	17,276,669	3,252	18.8
1908	17,675,922	3,853	21.8
1909	18,075,175	3,732	20.6
1890-1894	57,642,300	8,377	14.5
1895-1899	66,821,496	11,312	16.9
1900-1904	76,515,869	14,008	18.3
1905-1909	86,397,973	16,824	19.5

In 1890, according to this table, the suicide rate was 12.3, by 1900 the rate had increased to 16.3, and by 1909 to 20.6. During the first five years of the period the rate was 14.5, during the second quinquennial period it was 16.9, during the third it was 18.3, and during the fourth 19.5 per 100,000 of population. Granting that the population estimates are more or less a matter of conjecture for a year so near the taking of a new census, it is not possible at this time to apply the necessary factor of correction, since the returns of the census of 1910 are not yet available. Whatever correction the facts may call for will not materially impair the accuracy of the conclusion that the suicide rate in American cities is distinctly on the increase, and that an occasional fall in the rate is almost invariably followed by a more rapid rise in the rate the year after. The facts form a suggestive commentary upon the state of private and public mortality of the present day.—*The Spectator,* August 11, 1910.

THE SUICIDE RECORD OF 1910.

The suicide rate of American cities decreased to 19.7 per 100,000 of population during 1910, against an average of 21.0 for 1909, and 21.8 for 1908. The present downward tendency of the suicide curve is not, however, likely to be permanent, but rather in conformity to past experience, to be followed by a further increase during the next few years. The curve does not always exactly coincide with the tendencies of other social or economic phenomena, but no thorough investigation of the subject has ever been made, although the literature of suicide is quite extensive. A critical analysis of individual cases also presents unusual difficulties on account of the fact that in many cases essential information concerning the immediate or contributory causes is wanting. In the nature of the phenomenon it is only natural that this should be so. Granting that self-murder is often a matter of temporary mental irresponsibility, there are many cases in which the evidence is quite conclusive that the suicidal intent has extended over a period of years. The increasing complexity of modern life favors mental and moral discontent, which is often erroneously assumed to be identical with mental irresponsibility. The more thoroughly the underlying causes of suicide are considered, however, the stronger becomes the conviction that in a large number of suicides the crime was the result, not of a want of mental balance but rather of a deliberate conviction that continued existence would not be worth while because of disappointment in the realization of material aims, or in the certainty of serious consequences of wrongful acts. Perhaps no occupation emphasizes this conclusion more precisely than the frequency of suicide among bankers and brokers, where a long career of dissipation and fraud often makes suicide the only desirable alternative to a long term in the penitentiary. Whatever may have been true of suicide in the past, it is a practical certainty that self-murder is today relatively common among men, and even women, who can not, by any rational theory of insanity, be considered as wanting in mental balance, or to be within the category of even the only half sane. A more extended discussion would involve a consideration of the diseases of the will and of morbid psychology, which do not fall within the scope of this review.

It has been possible this year to include the suicide record of 100 American cities for the twenty years ending with 1910. The census of last year affords an opportunity to correct previous population estimates, which accounts for slight changes in the rates, which, in the aggregate, however, are not of material importance. The 100 cities have a total population of 22,172,095 with a suicide mortality of 4377; or, as previously stated, equivalent to 19.7 per 100,000. With only three exceptions, this is the highest rate attained during any year since 1891, when the rate was only 13.5. During the first five years of the last two decades the average suicide rate was 14.5, increasing to 16.2 during the next five years, to 18.6 during the five years following, and finally to 20.0 during the five years ending with 1910. Eliminating,

therefore, fluctuations in rates by single years, it is evident that by quinquennial periods the suicide rate has shown a continuous upward tendency. The facts in detail are given in the following table:

TABLE A.—*Suicides in One Hundred American Cities, 1891-1910.*

Years.	Population.	Suicides.	Rate per 100,000 Population.
1891	12,818,957	1,727	13.5
1892	13,335,186	1,713	12.8
1893	13,686,566	2,097	15.3
1894	14,038,525	2,139	15.2
1895	14,539,050	2,218	15.3
1896	15,027,676	2,360	15.7
1897	15,416,634	2,583	16.8
1898	15,892,764	2,630	16.5
1899	16,269,285	2,594	15.9
1900	16,753,366	2,728	16.3
1901	17,248,177	2,855	16.6
1902	17,743,001	3,139	17.7
1903	18,237,846	3,513	19.3
1904	18,732,699	3,766	20.1
1905	19,254,249	3,650	19.0
1906	19,837,798	3,537	17.8
1907	20,421,363	3,975	19.5
1908	21,004,936	4,582	21.8
1909	21,588,516	4,537	21.0
1910	22,172,095	4,377	19.7
1891–1895	68,418,284	9,894	14.5
1896–1900	79,359,725	12,895	16.2
1901–1905	91,215,972	16,923	18.6
1906–1910	105,024,708	21,008	20.0

The next table (B) shows the actual and relative mortality from suicide for each of the 100 cities and towns for which the returns could be secured separately for the ten-year period ending with 1909, and the year 1910, together with the actual increase or decrease in the rate per 100,000 of population.

TABLE B.—*Comparative Rates of Suicides in One Hundred American Cities 1900-1910.*

	1900-1909.		1910.		
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Rate Increase or Decrease.
San Francisco, Cal.	1,957	52.0	176	42.2	— 9.8
San Diego, Cal.	106	38.5	9	22.7	—15.8
Hoboken, N. J.	229	35.4	19	27.0	— 8.4
Sacramento, Cal.	128	35.3	15	33.6	— 1.7
Los Angeles, Cal.	604	30.2	99	31.0	+ 0.8
Oakland, Cal.	310	29.7	48	32.0	+ 2.3
St. Louis, Mo.	1,856	29.7	196	28.5	— 1.2
Seattle, Wash.	420	27.8	72	30.4	+ 2.6
Springfield, Ill.	116	27.6	11	21.3	— 6.3
Pueblo, Col.	94	26.5	6	13.5	—13.0
Denver, Col.	447	26.4	68	31.9	+ 5.5
Newark, N. J.	715	25.1	70	20.1	— 5.0
Davenport, Ia.	97	24.8	12	27.9	+ 3.1
Haverhill, Mass.	90	23.1	5	11.3	—11.8
Milwaukee, Wis.	728	23.1	86	23.0	— 0.1

	1900-1909.		1910.		
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Rate Increase or Decrease.
Spokane, Wash.	153	22.8	25	23.9	+ 1.1
Chicago, Ill.	4,289	22.4	458	21.0	— 1.4
Cincinnati, O.	760	22.1	63	17.3	— 4.8
Indianapolis, Ind.	426	21.5	58	24.8	+ 3.3
Manhattan & Bronx, N. Y.	5,030	21.3	523	18.9	— 2.4
McKeesport, Pa.	80	21.0	13	30.4	+ 9.4
Omaha, Neb.	234	20.8	31	25.0	+ 4.2
Tacoma, Wash.	119	20.4	20	23.9	+ 3.5
New Haven, Conn.	241	20.2	18	13.5	— 6.7
Salt Lake City, Utah	142	19.9	22	23.7	+ 3.8
Louisville, Ky.	423	19.8	36	16.1	— 3.7
Auburn, N. Y.	62	19.5	8	23.1	+ 3.6
Orange, N. J.	51	19.5	3	10.1	— 9.4
Jersey City, N. J.	438	18.9	62	23.2	+ 4.3
Knoxville, Tenn.	65	18.9	6	16.5	— 2.4
Portland, Ore.	269	18.8	53	25.6	+ 6.8
Washington, D. C.	565	18.7	80	24.2	+ 5.5
Pittsburgh, Pa.	894	18.3	122	22.9	+ 4.6
Cleveland, O.	836	18.1	100	17.8	— 0.3
Concord, N. H.	37	18.1	10	46.5	+28.4
Columbus, O.	272	18.0	44	24.2	+ 6.2
New Orleans, La.	545	17.6	75	22.1	+ 4.5
Hartford, Conn.	155	17.5	15	15.2	— 2.3
Toledo, O.	254	17.1	34	20.2	+ 3.1
Quincy, Ill.	62	17.0	9	24.6	+ 7.6
Minneapolis, Minn.	420	16.7	52	17.3	+ 0.6
Rochester, N. Y.	302	16.5	37	17.0	+ 0.5
Brooklyn, N. Y.	2,209	16.3	246	15.1	— 1.2
Dayton, O.	161	16.2	27	23.2	+ 7.0
Memphis, Tenn.	184	16.0	30	22.9	+ 6.9
Bridgeport, Conn.	135	15.9	32	31.4	+15.5
Boston, Mass.	945	15.7	105	15.7	.....
Providence, R. I.	305	15.5	38	16.9	+ 1.4
Detroit, Mich.	522	15.1	122	26.2	+11.1
St. Paul, Minn.	287	15.1	30	14.0	— 1.1
Philadelphia, Pa.	2,080	14.8	299	19.3	+ 4.5
Fitchburg, Mass.	49	14.6	6	15.9	+ 1.3
Baltimore, Md.	772	14.5	81	14.5	.....
Reading, Pa.	126	14.5	21	21.9	+ 7.4
Elmira, N. Y.	51	14.4	8	21.5	+ 7.1
Paterson, N. J.	162	14.4	27	21.5	+ 7.1
Nashville, Tenn.	134	14.2	20	18.1	+ 3.9
Atlantic City, N. J.	51	14.0	14	30.3	+16.3
Buffalo, N. Y.	531	14.0	59	13.9	— 0.1
Massillon, O.	18	14.0	1	7.2	— 6.8
Newport, R. I.	34	13.8	0	0.0	—13.8
Mobile, Ala.	61	13.8	3	5.8	— 8.0
Lincoln, Neb.	56	13.4	7	15.9	+ 2.5
Worcester, Mass.	172	13.4	11	7.5	— 5.9
Elizabeth, N. J.	80	13.2	18	24.5	+11.3
Portland, Me.	71	13.2	5	8.5	— 4.7
Holyoke, Mass.	66	13.1	6	10.4	— 2.7
Passaic, N. J.	50	13.1	6	11.0	— 2.1
Petersburg, Va.	30	13.1	5	20.7	+ 7.6
Springfield, Mass.	96	13.1	21	23.6	+10.5
Syracuse, N. Y.	156	13.1	31	22.6	+ 9.5
Bayonne, N. J.	53	12.6	2	3.6	— 9.0
Brockton, Mass.	59	12.5	6	10.5	— 2.0
Altoona, Pa.	55	12.3	7	13.4	+ 1.1

	1900-1909.		1910.		
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Rate Increase or Decrease.
Erie, Pa.	71	12.0	10	15.0	+ 3.0
Savannah, Ga.	68	11.5	10	15.4	+ 3.9
Lawrence, Mass.	81	11.4	8	9.3	— 2.1
Lowell, Mass.	110	11.3	19	17.9	+ 6.6
Gloucester, Mass.	29	11.2	0	0.0	—11.2
Cambridge, Mass.	106	10.9	11	10.5	— 0.4
Newburgh, N. Y.	28	10.6	6	21.6	+11.0
Atlanta, Ga.	125	10.5	23	14.9	+ 4.4
Chelsea, Mass.	37	10.5	5	15.4	+ 4.9
Trenton, N. J.	88	10.5	19	19.6	+ 9.1
Manchester, N. H.	63	10.0	3	4.3	— 5.7
Scranton, Pa.	103	9.0	14	10.8	+ 1.8
Malden, Mass.	34	8.9	5	11.3	+ 2.4
Salem, Mass.	34	8.9	2	4.6	— 4.3
Lynn, Mass.	68	8.8	5	5.6	— 3.2
Wilmington, Del.	72	8.8	8	9.2	+ 0.4
Johnstown, Pa.	139	8.7	3	5.4	— 3.3
Pittsfield, Mass.	22	8.6	2	6.2	— 2.4
Williamsport, Pa.	26	8.6	4	12.6	+ 4.0
Camden, N. J.	71	8.5	15	15.9	+ 7.4
Richmond, Va.	88	8.4	12	9.4	+ 1.0
New Bedford, Mass.	55	7.3	10	10.3	+ 3.0
Somerville, Mass.	36	5.2	5	6.5	+ 1.3
Charleston, S. C.	27	4.7	9	15.3	+10.6
Augusta, Ga.	11	2.7	3	7.3	+ 4.6
Newton, Mass.	8	2.2	3	7.5	+ 5.3
Average 100 cities	36,282	19.0	4,377	19.7	+ 0.7

In fifty-nine of the cities and towns the suicide rate was higher than the average during the year 1910, but only in a very small number of cities was the decrease of material importance. It is suggestive, however, that in all of the cities in which the suicide rate has been excessively high in former years, the rate during 1910 was below the average except in Los Angeles, Oakland, Seattle and Denver. The cities with a low suicide rate are nearly all relatively small, while those with a high rate are mostly Western cities, except Hoboken and Newark, N. J., where the rate has been above the average for many years. Contrary to general expectations, the suicide rate of New York is not excessive; but, in fact, slightly below the average for 1910, or to be exact, 18.9 per 100,000, against 19.7 for all cities combined. The cities have been arranged in the order of suicidal frequency for the ten-year period ending with 1909, but the arrangement, of course, would have been somewhat different if this had been done for 1910.

The practical utility of the general information on the subject is, of course, quite limited in the consideration of suicide as a life insurance problem. The subject has been frequently discussed, and quite lately in a very suggestive contribution to the publications of the German Society for Insurance Science by Dr. Rothauge, who includes in his discussion the suicide experience data of a number of German companies. The data presented, however, are very limited in point of actual numbers, precluding definite conclusions for the time being, although the experience in a general way is suggestive of an increas-

ing tendency in suicidal frequency in the experience of German life insurance companies. It may be stated in this connection, however, that the general suicide rate in Germany has not materially increased within recent years, and the following table is of interest:

TABLE C.—*Suicides in the German Empire, Rates per 100,000 of Population.*

Year.	Males.	Females.	Total.
1893	34.6	8.3	21.2
1894	35.3	8.6	21.7
1895	32.5	8.4	20.2
1896	33.0	8.8	20.6
1897	33.2	8.4	20.6
1898	32.0	8.3	19.9
1899	31.3	8.2	19.5
1900	32.6	8.5	20.3
1901	33.6	8.2	20.8
1902	34.4	8.8	21.4
1903	34.8	9.1	21.7
1904	33.2	9.2	21.0
1905	33.4	9.5	21.3
1906	31.8	9.4	20.4
1907	31.9	9.6	20.6
1908	34.3	9.7	21.9
1909	34.7	10.1	22.3
1910	33.1	10.3	21.6
1911	33.5	10.3	21.7
1912	34.6	10.6	22.5
1913	35.0	11.7	23.2
1914	32.8	11.0	21.8
1915	22.7	10.7	16.6
1916	22.5	12.4	17.3
1917	21.1	11.9	16.4
1918	19.8	11.8	15.7
1919	23.6	13.6	18.4
1920	29.3	14.6	21.7
1921	29.3	12.7	20.7
1922	31.1	13.3	21.9
1923	30.1	13.4	21.4
1924	34.8	12.2	23.1
1925	36.4	13.3	24.5

The German data would seem to warrant the conclusion that the general suicide rate of a well-developed, commercially prosperous country reaches a maximum point, which will rarely exceed 25 per 100,000 of population except, perhaps, as the result of suicide epidemics which have occurred at rare intervals, and which are known rather as curiosities in abnormal medicine. It is not likely that life insurance experience would ever be seriously affected by epidemics of this kind, and it may safely be assumed that a maximum rate of 25 per 100,000 of population (males and females) probably measures the extreme intensity which the tendency towards self-murder is ever likely to attain in civilized countries under modern conditions of life.

The German suicide statistics indicate an increase in the tendency to self-murder on the part of women, while the rate among men has apparently reached a maximum, or not quite 35 per 100,000 of population. In the registration area of the United States for the five years ending with 1908, including about 55 per cent of the total population, the male suicide rate was 24.2 per 100,000 and the female rate 7.6, and for both sexes combined 16.1. These rates may safely be accepted

as representative for the country as a whole, and they warrant the conclusion that the tendency to suicide is much less among males in this country than in Germany, and the same is true, but to a lesser degree, of females. To every 100 suicides among males in the United States the corresponding number in Germany during the five years ending with 1908 was 136, while to every 100 female suicides in the United States the corresponding number in Germany was 125.

How far the social and economic condition of Germany accounts for this more pronounced tendency to self-destruction is a debatable question. The most conclusive statistical evidence of correlation between suicidal frequency and economic conditions is found in the remarkable coincidence of maximum and minimum points of frequency in the rate of business failures and the corresponding rate of suicide. For recent years, particularly, the two have almost invariably coincided, as is strikingly shown in the fallowing table:

TABLE D.—*Comparison of Suicides and Business Failures in the United States, 1891-1910.*

Year.	Suicides per 100,000 of Population in 100 American Cities.	Business Failures in the United States per 1,000 Existing Business Concerns.*
1891	13.5	10.7
1892	12.8	8.8
1893	15.3	12.8
1894	15.2	12.5
1895	15.3	10.9
1896	15.7	13.1
1897	16.8	12.6
1898	16.5	11.0
1899	15.9	8.1
1900	16.3	9.2
1901	16.6	9.0
1902	17.7	9.3
1903	19.3	9.4
1904	20.1	9.2
1905	19.0	8.5
1906	17.8	7.7
1907	19.5	8.2
1908	21.8	10.8
1909	21.0	8.0
1910	19.7	8.0

According to this table a decided fall in the rate of business failures in 1892 corresponded to a similar fall in the suicide rate, followed by a rapid rise in both rates during the panic year of 1893. A similarly decided depression occurred in 1906 from previously high points of frequency in 1904, followed by a rapid rise during 1907, another panic year, and 1908, when the results of the panic and business depression had become more general throughout the country. The high points in 1908 were followed by a decided fall in the rate of business failures during 1909 and 1910, and a corresponding decline in the suicide rate, although not exactly in the same proportion. The economic condition of the nation is, of course, only one of many factors which determine

* Furnished by R. G. Dun & Co.

the degree of suicidal frequency, but it is evident that there is a quite close relation between the suicide rate and the rate of business failures, which at least approximately measures the material well being of the people at any given time.

The obvious inference of the foregoing considerations is the suggestion of caution in the insuring of business men for relatively large amounts of insurance without sufficient evidence of their commercial standing. It can not be too often emphasized that in modern life insurance it is not so much the number of deaths from suicide in any given year as the amounts represented by such deaths, which, in all probability, will be found to average more per policy than the general average for all causes of deaths combined. It is only necessary here to recall the Blair case, involving practically a fortune represented by insurance, contingent upon the full meaning of the Missouri suicide law, than which it would be difficult to conceive of any statute more contrary to public policy and more of a direct inducement to self-murder for the purpose of defrauding life insurance companies and their policyholders. While it is no doubt true that education diminishes certain forms of crime, it is equally true that with increasing intelligence more subtle modes of deception and fraud tend to increase, and particularly is this true in life insurance experience unless every reasonable precaution is adopted on the part of the companies to safeguard their interests against costly deceptions of this kind.—*The Spectator,* July 6, 1911.

THE SUICIDE RECORD OF 1911.

The economic condition of the nation during 1911 was, in a general way, a very favorable one. The amount of bank clearings was less, but the increase in savings bank deposits was in conformity to the experience of previous years. The number of business failures was larger, but the amount of liabilities was smaller during 1911 than during 1910. As far as it is possible to judge from more or less incomplete returns, the amount of unemployment throughout the country was not actually as great as generally assumed, and the existence of fairly normal economic conditions is reflected in the urban suicide rate, which, during 1911, was practically the same as during 1910.

According to this table (omitted), the suicide rate remained the same in one city, the rate increased in sixty cities and decreased in thirty-nine cities. The most important increases in the rate occurred at Elmira, San Diego, Davenport, Salt Lake City, Auburn, Portland (Ore.), Hartford, Atlantic City, Reading, Camden, Richmond (Va.), and Newton (Mass.). It is decidedly suggestive that the rise in the suicide rates should have been confined chiefly to relatively small cities, where it is generally assumed that the stress and strain of life is considerably less pronounced than in cities of larger size. For the purpose of determining whether the change in this direction has been of sufficient importance to require serious consideration, I have arranged the facts separately for cities of less than 250,000 population, and for those with a population of 250,000 and over, as given in detail in the table below:

Comparative Rates of Suicides in Large and Small American Cities, 1901-1911.

		——Suicide Record for 1911.——			Average for 1901-10	Change in Rate
Size of Cities.	No. of Cities.	Total Population	Total Suicides.	Rate per 100,000.	(Rate per 100,000).	per 100,000.
Under 250,000	79	7,033,345	1,395	19.8	13.6	+6.2
250,000 and over..	21	15,725,136	3,065	19.5	22.7	—3.2
All cities.....	100	22,758,471	4,460	19.6	19.3	+0.3

According to this table there were seventy-nine cities with a population of less than 250,000, which, considered as a group, experienced a suicide rate of 19.8 per 100,000 of population during 1911, in contrast to an average of only 13.6 during the decade ending with 1910. There was, therefore, during 1911 an actual increase in the suicide rate of small cities of 6.2 per 100,000 of population, equivalent to 45.6 per cent. In twenty-one cities, with 250,000 or over, the suicide rate for 1911 was 19.5 per 100,000 of population, against an average of 22.7 for the decade ending with 1910. There was, therefore, an actual decrease in the suicide rate of large cities of 3.2 per 100,000 of population, equivalent to 14.1 per cent. During the decade ending with 1910 the suicide rate of small cities was decidedly below the rate for large cities, or, respectively, 13.6 per 100,000 of population, against 22.7—a difference of 9.1 per 100,000 of population. In 1911, however, the situation was reversed

and the suicide rate for small cities was 19.8, against 19.5 for large cities, or 0.3 per 100,000 higher. Had the suicide rate of small cities for 1911 been the same as during the previous decade, the actual number of suicides in these seventy-nine cities would have been only 957 instead of 1395, the actual difference being 438, and the difference in the rate 6.2 per 100,000 of population. It would require an extended analysis of individual suicides to establish, even with approximate accuracy, the true cause of this reversal of normal conditions, since the change is in marked contrast to the long-established experience, that the suicide rate in small cities is decidedly below the average for large communities. Since the suicide record of small cities for 1911 includes 1395 suicides, against 2986 suicides in large cities, the numbers for both groups are entirely sufficient for a safe conclusion.

Prussia's Suicide Record.

Some very interesting statistics have been recently published on the suicide record of Prussia, which may be briefly referred to on this occasion. The number of suicides in Prussia in 1910 was 8179, equivalent to a rate of 21 per 100,000 of population.* The rate was highest for the Province of Brandenburg, excluding Berlin, or 34.3 per 100,000, and lowest for the agricultural province of Posen, where the rate was only 9.8. Comparing 1910 with 1909, there was a decrease in the rate of every province except two, and in these the rise in the rate was not of particular significance. In proportion to population the male suicide rate was 32 per 100,000, and the female rate was 10. Considered with reference to divisional periods of life the rate are given in tabular form as follows:

Mortality from Suicide in the State of Prussia for 1910. (Rates per 100,000 Living, by Divisional Periods of Life.)

Ages.	Males.	Females.	Total.
Under 15	1.00	0.36	0.68
15-19	20.64	12.52	16.61
20-24	38.72	15.04	26.84
25-29	32.41	10.00	21.19
30-39	36.71	11.41	24.06
40-49	55.59	15.02	34.89
50-59	84.64	20.65	50.82
60-69	94.19	24.32	55.75
70-79	102.72	24.62	58.71
80 and over	98.82	24.80	55.53

According to this table there is a fairly persistent increase in the suicide rate with advancing age, but an exception to this rule is the late period of adolescence, when the rate is higher for both sexes than for the years immediately preceding or following. In other words, the maximum period of suicidal intensity during early life is at ages 20 to 24, inclusive.

The higher degree of suicidal frequency at these ages over the age period immediately following is, in all probability, the result of defective methods of education—mental and moral as well as economic. The table, however, is self-explanatory and requires no discussion in detail,

* The suicide rate of the registration area of the United States in 1910 was 16.0 per 100,000 of population.

since the causes of suicide by divisional periods of life are not available. For all ages the principal indicated cause of suicide was unsoundness of mind, accounting for 22.8 per cent of the suicides of males and 40.6 per cent of the suicides of females. Bodily disease accounted for 10 per cent of the suicides of males and 9.3 per cent of females, while nervous diseases accounted for 4.3 per cent and 7.4 per cent, respectively. In the case of males 10.1 per cent of the suicides were attributed to alcoholism, and only 1.5 per cent in the case of females. Sorrow and distress accounted for 12.2 per cent of the male suicides and 7.7 per cent of the female suicides. Of course, in many cases the alleged causes of suicide are a mere matter of conjecture, and any analysis of this kind must be accepted with due reserve.

Factor of Uncertainty.

As has been frequently pointed out in previous articles on this interesting subject, there remains a considerable factor of uncertainty in all suicide statistics on account of the inherent defects in the original returns. Aside from the fact that our coroner system is decidedly defective, in that verdicts are frequently rendered by a layman not qualified to express an opinion on a complicated state of facts more or less medico-legal in their nature, there is the further difficulty that increasing intelligence enables a considerable number of suicides to so arrange the surrounding circumstances of the act that even the most competent expert in medical jurisprudence is unable to conclude with absolute certainty whether the case was one of accident, homicide or self-murder. The common belief that in a large number of suicides there is a pre-existing condition of unsoundness of mind unquestionably has much evidence in its favor aside from the statistical returns for Prussia, according to which 27.2 per cent of the suicides were directly or indirectly the result of mental disease. The most recent authority on unsoundness of mind—Dr. T. S. Clouston, the president of the Royal College of Physicians of Edinburgh—observes in this connection that, "In about three-fourths of all the cases of depression in the mentally unsound there is developed a symptom in which the primary instinct of a human being is changed and reversed. The love of life weakens, disappears, and there takes its place a desire to put an end to life, which may amount to a craving for death with persistent, determined and cunning attempts to accomplish that object. * * * The suicidal tendency may arise or be strengthened by seeing the means of doing it. For instance, a knife, or water, or a bottle of poison may suggest suicide. * * * The actual carrying out of suicide depends much on the natural courage and the strength of the religious and moral principles. Fewer suicides by one-half occur among women than men, although the actual desire is as frequent in the one sex as the other. * * * In some cases it comes on sharply and suddenly without much warning, and in other cases it has a long prelude of depression. The tendency to suicide often runs in families. Suicidal impulse is in a few cases combined with a desire to kill others. * * * Its greatest prevalence is from forty to sixty-five years of age, which is also the age that the depressed variety of mental unsoundness is most commonly met with, being the time of

life when the climacteric in both sexes occurs, and when the general process of decadence of brain and body has begun."

Insanity and Suicide.

Equally interesting and suggestive in this connection is the earlier observation of Mercier, who, in his treatise on "Sanity and Insanity," states that:

"It is often assumed, not only by the verdicts of coroners' juries, but in the writings and speeches of thoughtful men, that a person who commits suicide must necessarily be insane at the time of the act. In this opinion I do not share. It seems to me that a man's circumstances may be such that he may, upon careful and comprehensive review of them, deliberately conclude that life is not worth living, and that it is better to seek annihilation, or to take the chance of happiness or unhappiness in a future life, than to submit to certain and extreme misery in this. Suppose that a man is subject to a combination of adverse circumstances, that his wife has run away from him, his daughters disgraced him, his sons have robbed him, that his business is a failure, and that he is afflicted with some horrible and incurable disease. Who will say that, for a man so situated, to shorten the poor and miserable remnant of life remaining to him is an act of insanity? He has to take his choice of evils. Even granting that by choosing to put an end to himself, to throw down his fardel and refuse any longer to grunt and sweat under a weary life, he chooses wrongly and unwisely, yet does the wrong and unwisdom of such a course amount to insanity? Surely not."

There are strong reasons for believing that this class of persons is rapidly on the increase in the United States under the complex conditions of American life. It is equally safe to assume that in quite a number of cases the method of suicide is so ingenious as to preclude an accurate diagnosis. Modern education is largely responsible for social and moral discontent. The considerable amount of publicity which is given to suicides in newspapers, and the means by which life is voluntarily brought to an end, implies a most serious menace to the community on the well-established basis of the psychology of suggestion. Even though the change in the suicide rate during recent years indicates slightly improved conditions, the evidence is otherwise quite conclusive that suicide is a real evil of nation-wide extent. On the basis of the rate of 16.0 per 100,000 for the registration area for 1910, there occurred approximately 15,000 suicides in the entire United States during 1911. This voluntary tribute of human life to early death is equivalent to a contempt for a tolerable existence without a parallel in history. The fact disclosed by the present analysis, that during 1911 the suicide rate in relatively small American cities was higher than in large cities is additional proof that the menace of self-murder is real, and that the subject demands the most serious attention of those who are responsible for the moral and spiritual welfare of the people.—*The Spectator,* July 11, 1912.

THE SUICIDE RECORD OF 1912.

The suicide record of American cities during the year 1912 was 18.8 per 100,000 of population and the lowest on record since 1906. The rate has been declining since 1908, and there was an actual decrease in the number of suicides in the one hundred cities from 4460 in 1911 to 4397 in 1912. The decline in the rate would seem to indicate that, for the time being at least, the economic condition of the country is improving over previous years, for, as pointed out in an earlier review,* there is a fairly close relation between the suicide rate and the curve of business failures. The decline also would indicate that moral conditions are better, although the fact that the present annual mortality from suicide throughout the United States is approximately 15,000 suggests a far from satisfactory state of affairs.

The table following exhibits the comparative rates of suicide in one hundred American cities for the decade ending with 1911 and for the year 1912.

TABLE I.—*Comparative Rates of Suicide in 100 American Cities, 1902-1912.*

	1902-1911.		1912.		Rate Increase or Decrease.
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	
San Francisco, Cal.	1,963	50.2	190	44.0	— 6.2
San Diego, Cal.	130	40.7	16	36.4	— 4.3
Sacramento, Cal.	148	37.7	19	39.8	+ 2.1
Hoboken, N. J.	228	34.1	22	30.4	— 3.7
Los Angeles, Cal.	786	32.3	135	37.2	+ 4.9
St. Louis, Mo.	2,039	31.5	239	33.7	+ 2.2
Oakland, Cal.	375	31.0	57	34.2	+ 3.2
Springfield, Ill.	136	29.9	20	36.2	+ 6.3
Denver, Col.	549	29.6	54	23.6	— 6.0
Seattle, Wash.	517	28.3	83	30.9	+ 2.6
Davenport, Ia.	112	27.6	11	24.8	— 2.8
Newark, N. J.	735	24.0	63	16.9	— 7.1
Salt Lake City, Utah	189	23.9	29	28.8	+ 4.9
Pueblo, Col.	92	23.8	10	21.0	— 2.8
Indianapolis, Ind.	500	23.7	65	26.4	+ 2.7
McKeesport, Pa.	94	23.7	6	13.5	—10.2
Omaha, Neb.	275	23.6	37	28.8	+ 5.2
Milwaukee, Wis.	769	23.1	68	17.1	— 6.0
Auburn, N. Y.	74	22.7	6	16.7	— 6.0
Portland, Ore.	369	22.2	53	23.0	+ 0.8
Cincinnati, O.	778	22.2	65	17.5	— 4.7
Chicago, Ill.	4,464	22.2	546	23.9	+ 1.7
Haverhill, Mass.	88	21.8	10	21.4	— 0.4
Tacoma, Wash.	147	21.7	36	38.7	+17.0
Washington, D. C.	671	21.5	89	26.1	+ 4.6
Spokane, Wash.	171	21.2	21	17.8	— 3.4
Louisville, Ky.	451	20.8	49	21.5	+ 0.7
Concord, N. H.	43	20.6	3	13.7	— 6.9
Elmira, N. Y.	73	20.4	2	5.2	—15.2
Manhattan & Bronx, N. Y.	5,050	20.2	493	16.9	— 3.3
Atlantic City, N. J.	81	20.2	12	24.2	+ 4.0

* *The Spectator* for July 6, 1911.

	1902-1911.		1912.		Rate Increase or Decrease.
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	
Columbus, O.	326	20.1	39	20.2	+ 0.1
Toledo, O.	310	19.9	35	19.9	.....
Hartford, Conn.	184	19.9	20	19.5	— 0.4
Dayton, O.	210	19.9	22	17.9	— 2.0
Pittsburgh, Pa.*	991	19.6	105	19.1	— 0.5
New Haven, Conn.	243	19.5	23	16.6	— 2.9
Jersey City, N. J.	463	19.0	35	12.4	— 6.6
Cleveland, O.	935	18.8	105	17.6	— 1.2
Quincy, Ill.	68	18.6	4	10.9	— 7.7
New Orleans, La.	590	18.4	69	19.7	+ 1.3
Orange, N. J.	50	18.3	1	3.2	—15.1
Memphis, Tenn.	222	18.3	33	24.1	+ 5.8
Minneapolis, Minn.	494	18.2	54	17.0	— 1.2
Bridgeport, Conn.	166	18.2	17	15.7	— 2.5
Rochester, N. Y.	349	17.9	31	13.3	— 4.6
Knoxville, Tenn.	62	17.7	8	21.6	+ 3.9
Detroit, Mich.	677	17.6	117	22.7	+ 5.1
Reading, Pa.	156	17.3	15	15.1	— 2.2
Paterson, N. J.	197	16.9	19	14.5	— 2.4
Providence, R. I.	344	16.6	39	16.6	.....
Fitchburg, Mass.	57	16.4	3	7.5	— 8.9
Boston, Mass.	1,014	16.3	108	15.4	— 0.9
Syracuse, N. Y.	199	16.0	26	17.9	+ 1.9
Philadelphia, Pa.	2,319	15.9	248	15.5	— 0.4
St. Paul, Minn.	316	15.8	39	17.6	+ 1.8
Elizabeth, N. J.	101	15.6	9	11.5	— 4.1
Brooklyn, N. Y.	2,265	15.6	185	10.6	— 5.0
Baltimore, Md.	833	15.4	88	15.5	+ 0.1
Springfield, Mass.	119	15.1	22	23.1	+ 8.0
Petersburg, Va.	35	15.0	5	20.3	+ 5.3
Nashville, Tenn.	146	14.6	24	20.6	+ 6.0
Buffalo, N. Y.	555	14.1	47	10.6	— 3.5
Newburgh, N. Y.	37	13.8	1	3.5	—10.3
Lincoln, Neb.	59	13.8	9	20.1	+ 6.3
Mobile, Ala.	64	13.6	8	14.8	+ 1.2
Lowell, Mass.	133	13.3	10	9.0	— 4.3
Massillon, O.	17	12.9	1	7.0	— 5.9
Trenton, N. J.	113	12.8	18	17.7	+ 4.9
Bayonne, N. J.	60	12.8	3	4.9	— 7.9
Worcester, Mass.	170	12.6	25	16.3	+ 3.7
Holyoke, Mass.	66	12.5	11	18.1	+ 5.6
Portland, Me.	69	12.4	9	14.9	+ 2.6
Brockton, Mass.	63	12.4	13	21.8	+ 9.4
Passaic, N. J.	54	12.3	5	8.1	— 4.2
Erie, Pa.	75	12.2	12	17.3	+ 5.1
Altoona, Pa.	58	12.2	4	7.3	— 4.9
Atlanta, Ga.	160	12.1	19	11.3	— 0.8
Savannah, Ga.	72	11.7	2	3.0	— 8.7
Newport, R. I.	30	11.7	3	10.7	— 1.0
Camden, N. J.	100	11.5	6	6.1	— 5.4
Chelsea, Mass.	38	10.8	4	13.1	+ 2.3
Lawrence, Mass.	81	10.7	8	8.7	— 2.0
Gloucester, Mass.	27	10.6	4	16.8	+ 6.2
Richmond, Va.	118	10.5	18	13.2	+ 2.7
Cambridge, Mass.	104	10.4	9	8.3	— 2.1
Wilmington, Del.	83	9.9	9	10.0	+ 0.1
Manchester, N. H.	64	9.8	8	11.0	+ 1.2

* Includes Allegheny.

	1902-1911.		1912.		Rate Increase or Decrease.
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	
Scranton, Pa.	116	9.7	9	6.6	— 3.1
Malden, Mass.	38	9.5	2	4.3	— 5.2
Salem, Mass.	37	9.3	6	13.0	+ 3.7
Williamsport, Pa.	28	9.1	0	.....	— 9.1
Lynn, Mass.	72	8.9	12	12.7	+ 3.8
New Bedford, Mass.	69	8.4	22	20.8	+12.4
Pittsfield, Mass.	23	8.3	2	5.7	— 2.6
Johnstown, Pa.	39	8.0	1	1.7	— 6.3
Charleston, S. C.	38	6.6	6	10.1	+ 3.5
Somerville, Mass.	37	5.2	5	6.2	+ 1.0
Newton, Mass.	16	4.2	3	7.3	+ 3.1
Augusta, Ga.	15	3.7	6	14.5	+10.8
Total of 100 cities	39,536	19.6	4,397	18.8	— 0.8

The rate of 18.8 per 100,000 of population for 1912 compares favorably with the average of 19.6 for the preceding decade, indicating a decline in the rate during the year equivalent to 0.8 per 100,000 of population. The one hundred American cities had an estimated population for 1912 of about 23,500,000, equivalent to 24.7 per cent of the total population of the continental United States.

According to the Report for 1911 of the Division of Vital Statistics of the Bureau of the Census, the suicide rate for the year 1911 was 16.2 per 100,000 of population for the registration area. When this rate is applied to the total population, estimated for the middle of the year 1912, it is shown that there were approximately 15,400 suicides in the United States that year. It may be stated in this connection that for 1911 the suicide rate for the white population was 16.5, and for the colored 10.3. In the rural portion of the registration States the general suicide rate was 12.6 per 100,000 of population, having been 12.7 for the whites and 9.7 for the colored. The earlier disparity in the white and colored suicide rates, it would seem, tends gradually to become less, but at the present time the white suicide rate of the registration area is still 60.2 per cent in excess of the colored.

The table of comparative rates of suicides in one hundred American cities shows that during 1912 the rate increased over the decennial average in forty-six cities and decreased, or remained stationary, in the remaining fifty-four cities. The Pacific Coast cities, as usual, exhibit high suicide rates, but there was a decline in the rate for San Francisco and San Diego, but a slight increase in the rate for Sacramento, Los Angeles and Oakland. The rate for Hoboken, which is always considerably above the average, also declined during 1912, but a slight increase occurred in the rates for St. Louis, Mo., Seattle, Wash., and Salt Lake City, Utah.

The highest suicide rate during 1912 prevailed in the city of San Francisco, or 44.0 per 100,000 of population, followed by Sacramento, with 39.8; Tacoma, Wash., with 38.7; Los Angeles, with 37.2; San Diego, with 36.4, and Springfield, Ill., with 36.2. Williamsport, Pa., has the unique distinction of having had no suicide during 1912, and during the preceding decade the rate was only 9.1 per 100,000 of popula-

tion, or less than one-half the average for the one hundred American cities at large. Exceptionally low rates prevailed in Elmira, N. Y., 5.2; Newburgh, N. Y., 3.5; Orange, N. J., 3.2; Savannah, Ga., 3.0, and Johnstown, Pa., 1.7. A question of doubt arises in the case of some of these cities as to the absolute accuracy of the returns, for there is more or less of a tendency to classify suicides as accidents in the absence of a precise coroner's verdict to the contrary. The number of suspicious violent deaths is apparently increasing, and the problem of arriving at an absolutely correct conclusion is a most difficult one. The criminal mind is becoming more alert to methods which defy detection, as made evident by a not inconsiderable number of individual suicide and accident cases with regard to which even the best-trained experts in medico-legal science are seriously in doubt. The question may be raised in this connection as to whether medical jurisprudence has made progress during recent years corresponding to the marvelous advance in other directions of medicine and surgery. No field, however, would seem to offer greater opportunities for the specialist, with the practical certainty of an adequate pecuniary reward. It may also be suggested that the law relating to coroners and coroners' inquests is far from meeting the needs of the nation; but this condition prevails not only in this country but also abroad, as made evident by the proceedings and minutes of evidence of the coroners' committee, appointed in 1909 by the Right Hon. Herbert John Gladstone, M. P., one of His Majesty's principal Secretaries of State. This committee published two valuable reports, in three volumes, with several appendices and statistical tables. The report is amplified by an earlier British departmental committee investigation on death certification, published as a Parliamentary paper, in two parts, in 1893. The subject is one which may possibly be brought within the scope of Federal legislation, as suggested by several reports made to the Senate of the United States during 1887-1888 on "Inquests under National Authority," with a bill introduced by the minority members of the committee on the judiciary, which, however, failed to become a law.

An annual voluntary loss of over 15,000 lives is certainly a suitable subject for national concern. It is not only that in a fair proportion of cases a needless and heavy burden is placed upon life insurance policyholders in the payment of claims often long before the attainment of normal expectation, but there must result in many other cases a not inconsiderable amount of economic and social dependence, with serious consequences to the taxpayers of the several States. Although the rate for 1912 indicates a gratifying though small decline from the average for the previous decade, the decline has affected only the group of twenty-one large cities, for in the group of small cities, or such as had a population of less than 250,000, the rate increased from an average of 17.1 to 17.5. The details, by size of cities, are given in the following table:

TABLE II.—*Comparative Rates of Suicide in Large and Small American Cities.*

Rates per 100,000 of Population.

Size of Cities.	No. of Cities.	Suicide Record for 1912. Total Population.	Total Suicides.	Rate.	Average for 1902-1911.	Change in Rate.
Under 250,000	79	7,217,112	1,265	17.5	17.1	+0.4
Over 250,000	21	16,119,490	3,132	19.4	20.7	—1.3
Total	100	23,336,602	4,397	18.8	19.6	—0.8

According to this table the average suicide rate for small cities is closely approaching the average rate for large cities, or, to be precise, the respective rates for 1912 were 17.5 and 19.4. As pointed out previously, the rural suicide rate for the registration States for 1911 was 12.6 per 100,000 of population, in contrast to a rate of 19.1 for the cities in registration States during the same year. The disparity in the rates, therefore, is greater in all the case of cities and rural districts than in the case of large and small cities, with a tendency apparently towards a further increase in the rate of cities and towns of less than metropolitan importance. The table would seem to justify the conclusion that the conditions destructive of a rational conception of life and its social, moral and religious obligations are operative to almost the same degree in the cities of smaller size as in the more conspicuous and congested centers of population.

Table III exhibits the suicide record of one hundred American cities in a consolidated form since 1893, with the quinquennial averages indicating a rise in the rate from 15.7 for 1893-1897 to 20.2 for 1908-1912.

TABLE III.—*Suicides in 100 American Cities, 1893-1912.*

Year.	Population.	Suicides.	Rate per 100,000 Population.
1893	13,686,566	2,097	15.3
1894	14,038,525	2,139	15.2
1895	14,539,050	2,218	15.3
1896	15,027,676	2,360	15.7
1897	15,416,634	2,583	16.8
1898	15,892,764	2,630	16.5
1899	16,269,285	2,594	16.9
1900	16,753,366	2,728	16.3
1901	17,248,177	2,855	16.6
1902	17,743,001	3,139	17.7
1903	18,237,846	3,513	19.3
1904	18,732,699	3,766	20.1
1905	19,254,249	3,650	19.0
1906	19,837,798	3,537	17.8
1907	20,421,363	3,976	19.5
1908	21,004,936	4,582	21.8
1909	21,588,516	4,537	21.0
1910	22,172,095	4,377	19.7
1911	22,758,481	4,460	19.6
1912	23,336,602	4,397	18.8
1893–1897	72,708,451	11,397	15.7
1898–1902	83,906,593	13,946	16.6
1903–1907	96,483,955	18,441	19.1
1908–1912	110,860,630	22,353	20.2
1893–1912	363,959,629	66,137	18.2

According to this tabulation, there have been 66,137 suicides in one hundred American cities during the past twenty years, equivalent to an average rate of 18.2 per 100,000 of population. In an age which concerns itself so generally with the problem of the conservation of natural and human resources it would seem that the time has come for a more intelligent public interest in what is, without question, one of the greatest moral and social problems of the time.—*The Spectator,* October 2, 1913.

SUICIDE RECORD OF 1913.

The most interesting recent contribution to the study of the suicide problem in its relation to life insurance is the analysis of the American experience by causes of death made in connection with the Medico-Actuarial Investigation. The table following exhibits the proportionate mortality from suicide by three divisional periods of life, as well as the rate mortality per 10,000 exposed to risk, according to sex.

Suicide in American Life Insurance Experience (Medico-Actuarial Investigation), 1912.

MALES.

Ages at Entry.	Number of Policies Terminated by Death.	Proportionate Mortality.*	Rate per 10,000 Exposed to Risk.
15-29	141	3.1	1.5
30-44	324	4.1	2.8
45 and over	136	2.5	4.8
Total	601	3.4	.....

Suicide in American Life Insurance Experience (Medico-Actuarial Investigation), 1912.

FEMALES.

Ages at Entry.	Number of Policies Terminated by Death.	Proportionate Mortality.*	Rate per 10,000 Exposed to Risk.
15-29	76	2.1	1.1
30-44	82	1.4	0.9
45 and over	26	0.5	1.0
Total	184	1.3	.....

For insured males there is a distinct rise in the suicide rate with advancing age from 1.5 per 10,000 at ages 15 to 29, to 2.8 at ages 30 to 44, and to 4.8 at ages 45 and over. For insured females, however, the rate is practically the same for each period of life. Proportionate to the mortality from all causes, the suicide mortality was highest at ages 30 to 44 for males, or 4.1 per cent, and for females at ages 15 to 29, or 2.1 per cent. The number of deaths for women, however, is hardly sufficient to warrant entirely safe conclusions. The much higher rate of frequency of suicide among men, as observed in general experience, is, therefore, confirmed by the experience of American life insurance companies for a comparatively recent period of time.

An interesting comparison is possible with the general suicide rate for the United States registration area, according to sex, for the decade ending with 1912. The table below will show the results by divisional periods of life, but in a slightly different form than the age division adopted for the Medico-Actuarial Investigation.

Mortality from Suicide by Age and Sex, U. S. Registration Area, 1903-12.

Rates per 10,000 Population.

Ages at Death.	Male.	Female.
Under 15	0.03	0.02
15-44	2.39	1.02
45 and over	5.60	1.13

* Per cent of deaths from suicide to the mortality from all causes at each age period.

It is shown that for males at ages 15 to 44 the suicide rate for the registration area was 2.4 per 10,000 of population, which compares with the corresponding rate of 2.2 for the insured male population. At ages 45 and over the male suicide rate for the registration area was 5.6 against a rate of 4.8 for the insured male population. For women it is shown that at ages 15 to 44 the rate for the registration area was 1.02 against a rate of 1.0 for insured females; at ages 45 and over the female rate for the registration area was 1.13 against a rate of 1.0 for insured women. For both sexes, therefore, the suicide rate as disclosed by the American insurance experience was below the average for the general population of the United States registration area, for which the returns may be safely accepted as conclusive.

The suicide statistics of American cities for the last twenty years are summarized in the usual form in the table below, and more conveniently by quinquennial periods:

TABLE III.—*Suicides in 100 American Cities, 1894-1913.*

Year.	Population.	Suicides.	Rate per 100,000 of Population.
1894	14,009,143	2,123	15.2
1895	14,509,040	2,204	15.2
1896	14,996,618	2,349	15.7
1897	15,384,527	2,571	16.7
1898	15,859,608	2,621	16.5
1899	16,235,080	2,590	16.0
1900	16,756,990	2,726	16.3
1901	17,251,169	2,850	16.5
1902	17,745,361	3,143	17.7
1903	18,239,573	3,511	19.2
1904	18,733,793	3,762	20.1
1905	19,254,710	3,647	18.9
1906	19,837,889	3,536	17.8
1907	20,421,084	3,969	19.4
1908	21,004,288	4,582	21.8
1909	21,587,499	4,531	21.0
1910	22,170,708	4,377	19.7
1911	22,756,723	4,453	19.6
1912	23,334,475	4,397	18.8
1913	23,917,482	4,470	18.7
1894–1898	74,758,936	11,868	15.9
1899–1903	86,228,173	14,820	17.2
1904–1908	99,251,764	19,496	19.6
1909–1913	113,766,887	22,228	19.5

As far as it is possible to judge, a maximum suicide figure for American cities was attained in 1908, when the rate reached 21.8 per 100,000 of population. The rate of 18.7 for the year 1913 was the lowest on record since 1903, with the exception of 1906. A diminishing suicide rate may be safely assumed to reflect in a general way an improvement in the social and economic condition of the country, and in this respect the evidence available is quite conclusive that the year 1913 was one of widely diffused prosperity.—*The Spectator,* November 26, 1914.

THE SUICIDE RECORD OF 1914.

Suicide as a life insurance problem has attracted the attention of executive officers, actuaries, medical directors and others for many years. The literature of the subject is quite extensive, but generally inaccessible to the student of life insurance methods and results. One of the earliest contributions is by R. Thompson Jopling, in the first volume of The Journal of the Institute of Actuaries (the *Assurance Magazine* for 1851), followed by another in the second volume (1852), and a discussion by Samuel Brown, and a contribution by Dr. J. W. Eastwood, in the twentieth volume, issued in 1878. The practice had been common from the outset of insurance developments to decline the payment of suicide claims, irrespective of whether sane or insane, upon the offer of the return (1) of the premiums paid, and (2) of the accumulated reserve. This practice was seriously called into question by the executive committee of the Association of German Insanity Experts, who, under date of September 17, 1868, addressed a circular letter to German life insurance companies, resulting in an important report, followed by an elaborate treatise on the treatment of suicide cases in life insurance practice by A. Emminghaus of the Gotha Life Insurance Company, in 1875. This report includes an analysis of the company's suicide experience, and a review of the practice of thirty-four German companies, fifteen Austrian companies, two Swiss companies and a number of English and American companies. The practice of the Gotha up to that time is briefly reviewed and it is stated that out of 333 suicide claims only fifteen had been appealed to the courts for final adjudication, and in six of these the verdict had been against the company, in five in its favor, and in three there had been a compromise. One case had not been decided when the analysis was completed. The inquiry included (1) the precise definition of the term "suicide," (2) the policy conditions affecting the settlement of claims in cases of self-murder, and (3) the conditional circumstances under which a modification of the technical legal rights of the companies would be waived in favor of the insured. In amplification, a number of legal cases were briefly reviewed and the final conclusion was arrived at that the practice of the Gotha Life Insurance Company should be modified to provide that in cases of suicide, or death resulting from attempted suicide, the executive committee could, in due consideration of the special circumstances of each case individually considered, pay in excess of the accumulated reserve up to the full amount insured for.

In 1884, Wilhelm Stadler of the Janus, an Austrian life insurance company, published a brief on the question of the treatment of suicide in life insurance experience, including some very interesting statistical data, and, among others, the suicide experience of the Leipzig Life Insurance Company from 1835 to 1880, of the Gotha Life Insurance Company from 1834 to 1878, and of the Janus from 1856 to 1883. The conclusion of this investigation may be summed up in the statement that, in the main, the earlier point of view as regards a close relation between

insanity and suicide was maintained, and that in the majority of cases the act was conditioned by unsoundness of mind to a sufficient degree to warrant a liberal attitude on the part of the companies in the interpretation of their legal contractual rights according to the precise wording of the policy contract.

The entire subject was reviewed again in 1890 by Adolf Guyer, in an inaugural dissertation on the suicide clause in life insurance policies, published at Zurich, largely, however, with special reference to the experience and methods of the life insurance companies of Switzerland. On the basis of these several discussions and an elaborate brief prepared (but not published) by the Concordia Insurance Company of Cologne the question was carefully considered in the framing of the German code of insurance contract finally adopted in 1908. According to this code a company is released from all liability in the event of suicide unless the evidence is conclusive that the act of self-murder was committed while the insured was mentally irresponsible.

Among the more important American contributions to the subject of suicide in its relation to life insurance a brief reference may be made to an address by Ralph W. Breckenridge to the Life Underwriters Association at Chicago in 1904, which is summarized in the statement that a restrictive suicide clause is more in conformity to sound public policy than excessive liberality. The late Bloomfield J. Miller, in an address at Yale University in 1904, on "Suicide a Natural and Proper Life Insurance Hazard," advanced contrary conclusions, to the effect that "the experience of well-managed companies had shown that if a careful preliminary selection be made among applicants for insurance there is little fear of any materially unfavorable subsequent selection against the company owing to liberal non-forfeiture conditions or incontestable policies, or any other cause except the loss of the policyholders' confidence in the rectitude of the company's management, or in the ability of the company to meet its future obligations."

In reply to this argument, Henry C. Lippincott of Philadelphia, in a letter to the editor of *Insurance Economics,* under date of August 4, 1904, emphasized the point that the danger to the companies had not been overestimated, and particularly so with regard to policies for large amounts. In connection with this discussion, Joseph A. DeBoer, president of the National Life Insurance Company of Montpelier, Vt., contributed an article in 1904, including extended observations on the subject, strongly in favor of a conservative attitude summed up in the statement that "the limitation is thought to discount intent and fraud, and the acceptance of the risk thereafter is believed to be a rational and a normal procedure."

A rather suggestive investigation of the suicide experience of Scandinavian companies was made by Dr. Hans Tiselius and published about 1905; followed by a most interesting paper on "Suicide in Relation to Life Assurance," by W. J. Bloomfield, read before the Insurance Institute of New South Wales in 1908. Reference also requires to be made of the earlier published experience of the mortality from suicide of the Mutual Life Insurance Company of New York, issued in 1896, by the late Elias J. Marsh, M. D. The most extended study of the subject, however, was made by Richard Rothauge, in 1911, published in the

periodical of the German Society for Insurance Science. This important contribution includes many references to the international literature of the subject, and also to the available insurance experience data, extending, in some cases, over a long period of years, with a due regard to the exposed to risk according to age and duration of insurance. For life insurance purposes this address is of the first order of importance.

The foregoing observations indicate a broad and growing interest in the more technical aspects of the suicide problem in its relation to life insurance practice. There has been no thorough inquiry into the subject with a due regard to actuarial methods, making the necessary corrections for variations in the age and sex distribution of the insured, and most of all the duration of insurance.* General medical statistics of life insurance companies are not strictly comparable on account of the widely varying length of actual experience. Such statistics, however, as have frequently been published, and particularly the data included in the thoughtful paper by Bloomfield J. Miller, indicate that some reliance may be placed upon the crude suicide rate in the case of large companies which have attained to the status of a normal experience. The general indications are that in life insurance experience, as well as among the population at large, the suicide rate is on the increase. This important conclusion is once more confirmed by the suicide returns of American cities for the year 1914.

As a concise illustration of the geographical distribution of suicide in the United States, Table III is included to show for five geographical divisions the variations in the local rate of incidence, with a range of from 16.5 per 100,000 of population for the Eastern cities to 34.2 for the Pacific Coast cities. During 1914 the disparity in the rates was even more pronounced.

TABLE III.—*Geographical Incidence of Suicide in the United States, 1904-1914.*

		—1904-1913.—		—1914.—				
Cities.	Number of Cities.	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Difference In the Rate. Actual.	Per Cent.	Business Failures 1914 per 1,000 Concerns.
Eastern	55	18,590	16.5	2,115	16.4	—0.1	0.6	12.2
Central	18	13,192	22.2	1,560	23.0	+0.8	3.6	7.7
Southern	15	3,935	17.2	470	18.8	+1.6	9.3	12.5
Rocky Mountain	3	937	28.4	122	30.2	+1.8	6.3	10.2
Pacific Coast	9	5,070	34.2	715	37.2	+3.0	8.8	20.7
Total	100	41,724	19.6	4,982	20.3	+0.7	3.6	11.0

This table is of exceptional interest, as emphasizing the rather significant fact that in the more densely populated Eastern cities, where the struggle for material existence would apparently seem much more intense than on the Pacific Coast or in the South, the suicide rate has been much lower. As shown by the table, the suicide rate of 1914

* See, however, in this connection my discussion of the results of the medico-actuarial investigation with reference to suicide, in *The Spectator* for November 26, 1914.

actually decreased in the Eastern cities 0.6 per cent, but the rate increased 9.3 per cent in Southern cities, 8.8 per cent in Pacific Coast cities, 6.3 per cent in the cities of the Rocky Mountain States, and 3.6 per cent in the Central Western States. The table further shows that there is apparently no very close or precisely determinable relation between the increase in the suicide rate and the business failures during 1914, although it is shown that the highest rate of actual suicide frequency and the near to highest rate of increase coincided with the largest proportion of business failures on the basis of the number of business concerns affected.

TABLE IV.—*Suicides in 100 American Cities, 1895-1914.*

	Population.	Suicides.	Rate per 100,000 of Population.	Business Failures per 1,000 Concerns.*
1895	14,509,040	2,204	15.2	10.9
1896	14,996,618	2,349	15.7	13.1
1897	15,384,527	2,571	16.7	12.6
1898	15,859,608	2,621	16.5	11.0
1899	16,235,080	2,590	16.0	8.1
1900	16,756,990	2,726	16.3	9.2
1901	17,251,169	2,850	16.5	9.0
1902	17,745,361	3,143	17.7	9.3
1903	18,239,573	3,511	19.2	9.4
1904	18,733,793	3,762	20.1	9.2
1905	19,254,710	3,647	18.9	8.5
1906	19,837,889	3,536	17.8	7.7
1907	20,421,084	3,969	19.4	8.3
1908	21,004,288	4,582	21.8	11.0
1909	21,587,499	4,531	21.0	8.8
1910	22,170,708	4,377	19.7	8.4
1911	22,756,723	4,453	19.6	8.8
1912	23,334,475	4,397	18.8	9.9
1913	23,917,482	4,470	18.7	11.0
1914	24,510,854	4,982	20.3	11.0
1895–1899	76,984,873	12,335	16.0	11.1
1900–1904	88,726,886	15,992	18.0	9.2
1905–1909	102,105,470	20,265	19.8	8.9
1910–1914	116,690,242	22,679	19.4	9.6

The suicide rate for 1914 is shown to have been the highest since 1909, and the third highest during the twenty years under review. The correlation of suicides to business failures is only pronounced under exceptionally disturbed business conditions which appear not to have prevailed in the country at large, but which seemingly affected the excessive suicide rate returned for the cities of the Pacific Coast. This aspect of the suicide problem, as a statistical question, has not been thoroughly investigated, but the indications are that, on the basis of a specialized analysis of the two sets of returns for the five principal geographical divisions of the country a fairly close degree of correspondence would be shown to exist. It must be obvious, of course, that the number of business failures reflects in a measure the social and economic conditions affecting the population at large. Only a thoroughly pronounced and extended, as well as nation-wide, economic depression would, however, be likely to affect the general suicide rate. The evidence, however, is quite conclusive that, in a number of individual instances, there is a

* Source: Dun's Review, New York, N. Y.

direct relation between business failures and suicides, resulting in consequence of economic distress.

As a special suggestion, attention is directed to the apparently increasing number of suicides resulting from mere suggestion of previous cases of self-murder in the same family. A typical case of this kind was reported from Springfield, Mass., under date of October 30, where a woman committed suicide in exactly the same manner as her husband had done a year previous. This case was complicated by another suicide in the family of a very close friend of the woman, who had apparently ended her life in a similar manner. Such cases are reported with increasing frequency and they warrant the most serious apprehensions regarding the future. The psychology of suggestion is a much-neglected branch of modern medicine and education. The ever-present possibilities of self-murder, regardless of an overwhelming amount of evidence, are generally disregarded and treated lightly even in cases where the indications point strongly in the direction of unsoundness of mind. Child suicides are also seemingly more common now than in former years. A case was reported from Seattle under date of July 30, of a boy thirteen years of age who ended his life by drinking poison in exactly the way his father had done six years before, simply because he had been reproved by his mother for smoking. Also under the same date a case was reported from Mount Vernon, Wash., of a boy thirteen years of age who, upon being reproved by his mother for quarreling with his younger sister, ended his life by blowing out his brains. Under date of November 2 a case was reported from New York city, where a boy of sixteen years of age shot himself because he believed himself to be incurable of an ailment the nature of which was not disclosed in the newspaper account. All such cases indicate a decided tendency toward moral and mental deterioration and emphasize the urgency of greater caution by life insurance companies in assuming risks, especially for large amounts, and the justice of a suicide clause which adequately protects the interests of all policyholders against adverse selection during the first year.

The modern increase in suicides is, in part, attributable to exceptionally convenient facilities for self-murder, particularly by poison. As a pertinent illustration of the means or methods by which suicides in the United States are committed at the present time, the following table is included for the United States registration area for 1910-1913.

TABLE V.—*Methods of Suicide in the United States Registration Area, 1910-1913.*

Method.	Persons.		Males.		Females.	
	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.
By poison	10,995	4.6	7,040	5.8	3,955	3.4
By asphyxia	4,415	1.9	2,981	2.5	1,434	1.3
By hanging or strangulation	5,455	2.3	4,499	3.7	956	0.8
By drowning	2,097	0.9	1,363	1.1	734	0.6
By firearms	11,146	4.7	10,201	8.4	945	0.8
By cutting or piercing instruments	2,484	1.1	2,185	1.8	299	0.3
By jumping from high places	609	0.3	387	0.3	222	0.2
By crushing	349	0.1	298	0.2	51	0.1
Other suicides	306	0.1	180	0.1	126	0.1
Total suicides	37,856	16.0	29,134	23.9	8,722	7.6

This table is of exceptional interest. It emphasizes the extremely suggestive fact that for both sexes combined suicides by poison are now nearly as frequent as suicide by firearms. In proportion to population the male suicide rate was 23.9 per 100,000 of population, against a female rate of 7.6, but the sex differences in the rates are decidedly more pronounced when the several methods or means of committing suicide are considered. Among men it is shown that suicide by firearms was most common, amounting to 8.4 per 100,000 of population, followed by poison with a rate of 5.8, and hanging or strangulation with a rate of 3.7. Among women suicide by poison was the most common, accounting for a rate of 3.4 per 100,000 of population, followed by asphyxiation with a rate of 1.3, and hanging or strangulation and firearms, with rates of, respectively, 0.8. Throughout, for all specified methods, the rates for males are decidedly in excess of the corresponding rates for females. Concerning poison it is shown that of the male suicides 24.2 per cent were attributable to this method, and of the suicides of women 45.3 per cent. It would seem perfectly feasible to bring about a substantial reduction in the frequency of suicide by poison in the direction of more restrictive and even drastic legislation limiting the means or conditions under which poison can be obtained.

Laws or municipal ordinances governing the sale of poison at the present time seem not to be properly enforced in many communities, if reliance can be placed upon the published circumstances in individual cases. Much of the same conclusion applies to the sale of firearms. It is quite possible that the relatively low rate of suicide in Manhattan and The Bronx is, in part, accounted for by the operation of the Sullivan law prohibiting the unauthorized carrying of firearms, with adequate penalties for violations. From whatever point of view the subject is considered it is quite clear that the increasing frequency of suicide in the United States demands the most earnest consideration of those who may be in a position to direct public attention to one of the most serious problems of the present day.—*The Spectator,* November 25, 1915.

THE SUICIDE RECORD OF 1915.

The suicide record of 1915 indicates that the suicide rate of American cities has apparently reached, for the time at least, a stationary condition. The rate for the year was 20.3 per 100,000 of population for 100 American cities, which compares with 20.0 per 100,000 for the preceding quinquennial period, and 20.7 per 100,000 for the preceding year, which was the highest rate on record since 1890 with the exception of the year 1908. The details of the suicide record for one hundred cities are this year presented in an amplified form so as to show the variations in the rate since 1890, by quinquennial periods, for the quarter century under review, and separately for the year 1915. The increase or decrease in the rate for the year 1915 is compared with the average of the preceding five-year period ending with 1914.

The relative positions of the principal cities remain much the same as in former years. There are, of course, exceptions to this rule, which, however, rests upon the general conception that suicidal frequency is governed by local conditions more or less permanent in character, whether racial, social or economic. The three cities which show the highest suicide rates are San Diego, San Francisco and Sacramento, Cal. These three cities show an increase in the rate over the previous quinquennial period, but in the case of San Francisco and San Diego it is quite probable that the rates are not entirely trustworthy on account of the population changes resulting from the expositions held in these two cities last year and which make an accurate ascertainment impossible. For Oakland and Los Angeles, however, the rates show a decrease, whereas a substantial increase occurred in Sacramento, with the practical certainty that the population estimate was arrived at with approximate accuracy. The high rate of suicidal frequency reported for Springfield, Ill., suggests a special inquiry into local conditions, although the rate during 1915 was slightly less than during the preceding quinquennial period. A decrease in the rate also occurred in Tacoma, Wash., where, in fact, the rate was substantially reduced; and in Hoboken, N. J., where the rate during 1915 was below the prevailing average during the preceding fifteen years. In contrast, the suicide rate for Omaha, Neb., increased by 11.7 per 100,000, whereas the rate for Salt Lake City, Utah, decreased by 10.7 per 100,000. The rate for Omaha, Neb., during 1915 was the fourth highest rate for any American city during the year. It is difficult to understand why the rate for Tacoma, Wash., should have been 16.9 per 100,000 and the rate for Seattle, Wash., 29.0. These and other details of the returns for 1915 and previous years suggest the practical value of a thoroughly specialized statistical study of what must be considered to be one of the most perplexing problems in social pathology.

Suicide Rate and Business Failures.

The returns considered in the aggregate, by single years since 1890, are set forth in detail in Table No. II, which includes the suicide rate by quinquennial periods, and in addition thereto the business failures per

thousand of business concerns, according to statistics furnished by R. G. Dun & Co.

TABLE I.—*Comparative Mortality from Suicide in 100 American Cities, 1890-1915.*
Rate per 100,000 Population.

City.	1890-1894.	1895-1899.	1900-1904.	1905-1909.	1910-1914.	1915.	1915 Increase Over 1910-1914.
San Francisco, Cal.	34.0	43.9	55.5	47.8	46.8	55.7	8.9
San Diego, Cal.	31.6	23.2	31.7	40.0	43.2	63.3	20.1
St. Louis, Mo.	23.1	27.2	26.0	31.8	34.3	37.2	2.9
Oakland, Cal.	23.3	18.9	20.6	29.9	33.9	21.4	—12.5
Los Angeles, Cal.	20.4	25.6	26.2	31.2	33.3	32.7	— 0.6
Sacramento, Cal.	.....	30.3	13.6	41.4	31.6	51.2	19.6
Springfield, Ill.	3.7	14.0	21.8	30.2	31.1	30.4	— 0.7
Tacoma, Wash.	24.8	17.7	19.6	18.9	31.0	16.9	—14.1
Hoboken, N. J.	18.4	25.6	34.3	36.2	30.9	21.1	— 9.8
Omaha, Neb.	3.2	4.7	14.6	26.5	30.1	41.8	11.7
Salt Lake City, Utah	19.9	10.3	12.1	22.2	29.4	18.7	—10.7
Denver, Colo.	.....	15.4	22.7	28.9	29.1	26.5	— 2.6
Seattle, Wash.	21.0	10.4	25.4	28.6	29.0	29.0	.....
Atlantic City, N. J.	13.2	9.9	5.0	21.0	28.9	39.8	10.9
Indianapolis, Ind.	11.2	16.0	11.5	25.2	27.7	16.9	—10.8
Portland, Ore.	8.4*	19.2	11.8	23.5	26.0	21.5	— 4.5
Wheeling, W. Va.	.....	.....	18.8	17.2	25.1	13.9	—11.2
Concord, N. H.	4.6	12.7	17.0	17.2	24.7	31.2	6.5
Dayton, Ohio	10.9	14.3	10.3	21.1	24.3	14.4	— 9.9
Pueblo, Colo.	10.3	15.5	27.4	25.8	24.3	19.0	— 5.3
Washington, D. C.	14.7	14.7	14.9	21.4	23.2	24.4	1.2
Reading, Pa.	9.6	7.4	11.2	15.2	23.1	27.0	3.9
Spokane, Wash.	26.6	23.9	28.2	20.4	23.1	20.5	— 2.6
Bridgeport, Conn.	12.5	10.1	11.9	18.3	22.7	25.5	2.8
Auburn, N. Y.	12.6	15.6	13.6	23.2	22.5	5.4	—17.1
Chicago, Ill.	22.0	23.6	23.1	21.4	22.5	25.3	2.8
Detroit, Mich.	9.6	13.1	11.3	14.9	21.8	20.7	— 1.1
Toledo, Ohio	9.8	10.1	14.4	19.2	21.8	20.3	— 1.5
Columbus, Ohio	9.8	12.6	13.5	21.9	21.6	21.6	.....
Hartford, Conn.	9.0	12.1	10.5	20.4	21.6	21.2	— 0.4
Memphis, Tenn.	14.2	10.6	8.1	20.6	21.5	25.4	3.9
Knoxville, Tenn.	27.7	20.3	22.2	15.9	20.5	18.3	— 2.2
Elmira, N. Y.	1.3	1.8	7.4	20.7	20.3	13.2	— 7.1
McKeesport, Pa.	7.7	13.9	12.2	27.4	20.3	17.2	— 3.1
Syracuse, N. Y.	5.2	5.5	12.7	11.2	20.0	23.0	3.0
Milwaukee, Wis.	16.7	21.4	22.4	22.8	19.9	16.4	— 3.5
Newark, N. J.	15.8	15.6	23.4	25.4	19.9	15.9	— 4.0
Minneapolis, Minn.	11.3	12.4	12.6	17.9	19.8	22.8	3.0
Petersburg, Va.	.....	6.8†	9.0	13.7	19.5	23.7	4.2
Rochester, N. Y.	12.7	13.9	13.5	18.3	19.4	22.4	3.0
Cleveland, O.	12.1	13.2	15.3	19.3	19.3	19.3	.....
Paterson, N. J.	.....	.....	9.3	19.1	18.7	22.8	4.1
Pittsburgh, Pa.	10.4	11.5	15.4	20.1	18.7	14.5	— 4.2
Louisville, Ky.	12.6	9.5	13.0	21.5	18.6	23.6	5.0
Manhattan and Bronx, N. Y.	16.3	21.3	21.7	19.8	18.6	19.4	0.8
Baltimore, Md.	9.3	10.5	11.4	16.5	18.4	17.3	— 1.1
New Haven, Conn.	15.5	11.7	18.2	20.6	18.3	19.1	0.8
New Orleans, La.	15.1	16.4	13.6	19.4	17.9	18.9	1.0
Nashville, Tenn.	12.7	11.1	18.7	13.2	17.8	13.8	— 4.0
Philadelphia, Pa.	9.9	11.2	13.5	15.6	17.7	16.7	— 1.0
Springfield, Mass.	13.6	15.4	8.1	14.8	17.6	15.6	— 2.0

*3 years only, 1892-1894.
† Two years only, 1898-1899.

City.	1890-1894.	1895-1899.	1900-1904.	1905-1909.	1910-1914.	1915.	1915 Increase Over 1910-1914.
Trenton, N. J.	7.4	4.5	3.6	12.8	17.5	9.2	— 8.3
Lincoln, Neb.	4.6	4.9	10.3	15.9	17.4	17.4	.....
Cincinnati, Ohio	18.0	19.7	21.6	21.6	17.3	18.5	1.2
St. Paul, Minn.	15.3	14.9	13.1	14.9	17.1	24.9	7.8
Quincy, Ill.	8.6	12.1	13.2	15.3	16.9	16.3	— 0.6
Boston, Mass.	13.2	17.0	13.6	17.1	16.5	18.8	2.3
Haverhill, Mass.	11.2	13.3	19.8	19.3	16.3	16.8	0.5
Camden, N. J.	4.6	3.8	4.8	10.7	16.1	16.4	0.3
Providence, R. I.	9.5	12.3	10.9	18.9	16.0	15.7	— 0.3
Erie, Pa.	8.8	15.5	7.9	14.1	15.8	18.8	3.0
Brockton, Mass.	9.4	10.0	11.6	12.4	15.7	13.9	— 1.8
New Bedford, Mass.	5.6	4.5	5.1	7.2	15.3	12.3	— 3.0
Elizabeth, N. J.	8.5	8.5	12.3	12.8	15.2	15.5	0.3
Jersey City, N. J.	11.6	15.7	17.3	19.0	14.9	18.1	3.2
Atlanta, Ga.	7.1	4.8	4.5	15.1	14.8	15.2	0.4
Newburgh, N. Y.	3.3	7.3	3.9	17.0	14.8	6.8	— 8.0
Chelsea, Mass.	9.6	5.6	11.9	7.4	14.7	32.6	17.9
Worcester, Mass.	8.4	8.3	10.3	13.2	14.7	12.5	— 2.2
Portland, Me.	6.1	9.6	11.2	13.2	14.3	9.6	— 4.7
Brooklyn, N. Y.	11.2	16.6	17.5	14.8	14.1	13.4	— 0.7
Richmond, Va.	4.1	2.9	6.4	10.8	13.9	12.3	— 1.6
Lowell, Mass.	8.0	9.7	10.7	11.5	13.5	13.4	— 0.1
Wilmington, Del.	9.9	9.2	5.6	11.9	12.9	12.9	.....
Orange, N. J.	4.9	6.9	20.9	13.1	12.4	15.4	3.0
Savannah, Ga.	17.2	10.2	9.6	12.9	12.4	11.7	— 0.7
Fitchburg, Mass.	7.6	9.1	6.2	21.2	12.3	17.1	4.8
Buffalo, N. Y.	10.5	8.3	11.4	14.8	12.0	10.2	— 1.8
Mobile, Ala.	6.8	15.4	11.2	15.5	12.0	5.3	— 6.7
Passaic, N. J.	5.3	15.6	12.6	10.8	11.6	11.7	0.1
Augusta, Ga.	2.3	0.5	1.0	4.4	11.3	4.0	— 7.3
Manchester, N. H.	7.3	10.5	8.7	10.9	11.0	10.4	— 0.6
Lynn, Mass.	5.5	7.4	6.1	11.0	10.7	9.0	— 1.7
Bayonne, N. J.	8.3	9.6	11.5	13.0	10.6	8.9	— 1.7
Williamsport, Pa.	4.4	1.4	5.4	11.6	10.5	12.0	1.5
Holyoke, Mass.	3.2	5.2	11.0	11.3	10.3	3.1	— 7.2
Malden, Mass.	7.8	5.7	6.2	11.3	10.3	12.0	1.7
Scranton, Pa.	1.5	5.1	7.6	9.7	10.0	14.6	4.6
Pittsfield, Mass.	11.9	5.7	6.9	9.3	9.9	16.1	6.2
Charleston, S. C.	5.1	4.3	4.6	4.5	9.4	6.6	— 2.8
Newport, R. I.	7.9	8.2	14.5	13.1	9.3	6.8	— 2.5
Newton, Mass.	6.2	2.7	1.7	3.2	9.3	7.0	— 2.3
Gloucester, Mass.	6.9	9.5	12.3	10.2	9.0	20.8	11.8
Altoona, Pa.	11.2	3.8	7.7	12.0	8.5	10.5	2.0
Massillon, Ohio	11.5	8.8	16.2	13.5	8.4	19.9	11.5
Lawrence, Mass.	4.2	9.6	11.3	11.5	8.1	7.2	— 0.9
Salem, Mass.	9.3	9.1	7.1	10.5	8.0	6.3	— 1.7
Cambridge, Mass.	7.0	7.5	7.0	10.0	7.8	9.0	1.2
Johnstown, Pa.	8.1	5.7	5.5	8.9	7.4	6.1	— 1.3
Somerville, Mass.	4.4	6.1	4.6	5.5	6.5	8.2	1.7
Total of 100 cities	13.8	16.1	17.2	19.5	20.0	20.3	0.3

There is apparently a not very definite correlation between business failures and the suicide rate of American cities, with the exception of the year 1908, following the business panic of 1907, and also the year 1894, following the panic of 1893. A more definite correlation might be established if it were possible to consider only the male suicide rate in its relation to business failures, and if a further separation could be

made of the suicides, according to social and occupational status. The evidence is quite conclusive that every period of business depression results in a given number of suicides, just as prolonged periods of unemployment increase the suicide rate among the unemployed. In the aggregate, however, such occurrences are rarely sufficient to materially influence the suicide rate in general, or at least that would seem to be the case according to the American urban experience of the last twenty-five years.

TABLE II.—*Suicides in 100 American Cities, 1890-1915.*

	Population.	Suicides.	Rate per 100,000 of Population.	Business Failures per 1,000 Concerns.
1890	12,303,274	1,464	11.9	.....
1891	12,818,957	1,727	13.5	10.7
1892	13,335,186	1,713	12.8	8.8
1893	13,686,566	2,097	15.3	12.8
1894	14,038,525	2,139	15.2	12.5
1895	14,539,050	2,218	15.3	10.9
1896	15,027,676	2,360	15.7	13.1
1897	15,416,634	2,583	16.8	12.6
1898	15,892,764	2,630	16.5	11.0
1899	16,269,285	2,594	15.9	8.1
1900	16,753,366	2,600	15.5	9.2
1901	17,248,177	2,717	15.8	9.0
1902	17,743,001	3,000	16.9	9.3
1903	18,237,846	3,344	18.3	9.4
1904	18,732,699	3,573	19.1	9.2
1905	19,254,249	3,625	18.8	8.5
1906	19,837,798	3,399	17.1	7.7
1907	20,421,363	3,886	19.0	8.2
1908	21,004,936	4,537	21.6	11.0
1909	21,588,516	4,456	20.6	8.8
1910	22,172,095	4,383	19.8	8.3
1911	22,726,242	4,645	20.4	8.8
1912	23,340,597	4,552	19.5	9.8
1913	23,902,836	4,696	19.6	9.9
1914	24,453,647	5,067	20.7	11.0
1915	25,040,940	5,079	20.3	13.2
1890–1894	66,182,508	9,140	13.8	11.2*
1895–1899	77,145,409	12,385	16.1	11.1
1900–1904	88,715,089	15,234	17.2	9.2
1905–1909	102,106,862	19,903	19.5	8.9
1910–1914	116,595,417	23,343	20.0	9.6

Geographical Incidence of Suicide.

The geographical incidence of suicide is shown in Table III, in which the comparison is limited to the last eleven years and in which a further attempt is made to indicate a possible correlation of suicidal frequency and business failures. It will be noted in this connection that the highest suicide rate prevailed in the nine cities of the Pacific Coast, or 34.3 per 100,000 of population, compared with an average of 20.3 per 100 American cities; while in the same section the rate of business failures per thousand of business concerns was also the highest on record, or 20.7 against an average of 13.2 for the country as a whole. Negatively, however, the correlation is wanting, since the section with the lowest

* Data for 4 years only (1891-1894).

suicide rate, or the Eastern cities, does not show the lowest rate of business failures which prevailed in the cities of the Central West. The details of the geographical incidence of suicide are set forth in Table III:

TABLE III—*Geographical Incidence of Suicide in the United States, 1905-1915.* Rate per 100,000 Population.

	No. of Cities.	1905-1909. Suicides.	1905-1909. Rate.	1910-1914. Suicides.	1910-1914. Rate.	1915. Suicides.	1915. Rate.	1915. Increase in the Rate. Actual.	1915. Increase in the Rate. Per Cent.	Business Failures in 1915 per 1,000 Concerns.
Eastern	55	9,089	16.8	10,119	16.5	2,142	16.4	—0.1	—0.6	13.7
Central	17	6,178	21.8	7,393	23.0	1,666	24.1	1.1	4.8	8.4
Southern	16	1,920	16.9	2,209	18.0	460	17.9	—0.1	—0.6	17.1
Rocky Mtn.	3	415	26.8	540	28.6	98	23.4	—5.2	—18.2	8.6
Pacific Coast	9	2,301	33.7	3,082	34.4	713	34.3	—0.1	—0.3	20.7
Total	100	19,903	19.5	23,343	20.0	5,079	20.3	0.3	1.5	13.2

In this connection it may be pointed out that the suicide rate for 1915 was slightly less in every section of the country than during the preceding five years ending with 1914, with the exception of the group of cities in the Central West, where the rate increased 1.1 per 100,000 of population, or 4.8 per cent, against an increase in the general rate for 100 American cities of 1.5 per cent.

The comparative suicide rates of American cities, according to size, are set forth in Table IV, in which the one hundred cities are divided into a group having populations under 250,000, of which there are 76 cities, and a group having populations of 250,000 and over, of which there are 24. The comparison is for the year 1915 with the preceding decade, and the results must not be confused with the indicated decrease during 1915, when the comparison is limited to the preceding five years.

In the 76 cities with populations of less than 250,000 the rate increased 0.8 per 100,000 during 1915, when compared with the rate for 1905-14, or 4.6 per cent, against an increase of 0.4 per 100,000, or 1.9 per cent, for the larger cities.

The preceding statistical data were obtained by means of special inquiry through correspondence with local boards of health and the Division of Vital Statistics of the United States Census, and are further amplified by the statistics for the United States registration area, which, however, for the time being, do not extend beyond the year 1914.

TABLE IV.—*Comparative Suicide Rates of American Cities, According to Size, 1905-1915.*

Size of Cities.	Number of Cities.	1905-1914. Suicides.	1905-1914. Rate per 100,000 Population.	1915. Suicides.	1915. Rate per 100,000 Population.	1915. Increase in the Rate. Actual.	1915. Increase in the Rate. Percent.
Under 250,000	76	10,598	17.4	1,269	18.2	0.8	4.6
250,000 and over	24	32,648	20.7	3,810	21.1	0.4	1.9
Total	100	43,246	19.8	5,079	20.3	0.5	2.5

For life insurance purposes it is obviously of considerable practical value to ascertain precisely the rate of suicidal frequency according to age and sex. In the table following the available statistics for the United States registration area, for the five years ending with 1914, have been combined, and the results should prove of value.

TABLE V.—*Comparative Suicide Rates by Age and Sex, U. S. Registration Area, 1910-1914.*

	Males.				Females.			
	Population.	Suicides.	Rate per 100,000 Population.	Percentage Distribution.	Population.	Suicides.	Rate per 100,000 Population.	Percentage Distribution.
Under 5	15,976,517	.....	.....	.....	15,594,537	.....	.....	.....
5-9	14,323,999	2	*	*	14,087,099	.....	.....	.....
10-14	13,775,495	77	0.6	0.2	13,588,300	69	0.5	0.6
15-19	14,339,178	819	5.7	2.2	14,371,550	1,047	7.3	9.3
20-24	15,476,218	2,853	18.4	7.6	14,745,221	1,617	11.0	14.3
25-34	27,629,042	7,404	26.8	19.7	24,837,314	2,735	11.0	24.2
35-44	22,061,200	7,903	35.8	21.1	19,867,890	2,205	11.1	19.5
45-54	15,819,531	8,046	50.9	21.5	14,028,081	1,700	12.1	15.1
55-64	9,276,187	5,957	64.2	15.9	8,563,730	1,116	13.0	9.9
65-74	5,089,320	3,050	59.9	8.1	5,087,046	564	11.1	5.0
75-84	1,758,534	1,089	61.9	2.9	1,916,382	187	9.8	1.7
85 and over	273,044	146	53.5	0.4	349,514	30	8.6	0.3
Unknown	.....	154	.....	0.4	.....	19	.....	0.2
All ages	155,798,265	37,500	24.1	100.0	147,036,754	11,289	7.7	100.0

It is shown that the male suicide rate is 24.1 per 100,000 of population, while for females the rate is 7.7. The curve of suicidal frequency, according to age, varies sufficiently for the two sexes to require consideration. It will be observed that the maximum rate of suicidal frequency is attained at ages 55-64 for males, and at the same period of life for females, but the actual distribution of suicides by age is indicated by a maximum of 21.5 per cent of the total of ages 45-54 for males, and of 24.2 per cent at ages 25-34 for females. The higher rates of suicidal frequency among women at ages under 20 are particularly suggestive in contrast to the much lower rates at all subsequent periods of life.

Seasonal Frequency of Suicide.

The seasonal frequency of suicide is of some interest, though of relatively less medical and sociological significance. As shown by the table following, the maximum mortality from suicide in the United States registration area occurs during the months of May and June, and the minimum during January. Considered by seasons, the proportion of suicides during the winter months is 23.6 per cent; during the spring months, 27.7 per cent; during the summer months, 25.3 per cent; and during the autumn months 23.4 per cent of the number of suicides throughout the year.

* Less than one-tenth of 1 per cent.

TABLE VI.—*Comparative Suicide Rates by Months and Seasons, U. S. Registration Area, 1910-1914.*

	Suicides.*	Percentage Distribution.		Suicides.*	Percentage Distribution.
January	3,631	7.4	November	3,865	7.9
February	3,713	7.6	December	3,676	7.5
March	4,171	8.6			
April	4,423	9.1	Total		100.0
May	4,529	9.3	Winter	11,515	23.6
June	4,533	9.3	Spring	13,485	27.7
July	4,167	8.6	Summer	12,307	25.3
August	4,033	8.3	Autumn	11,428	23.4
September	4,107	8.4			
October	3,887	8.0	Total		100.0

The methods of suicide in the United States registration area also show decided variations according to sex, and in view of the fact that it is in the direction of a thorough understanding of the methods of any self-murder, that means of prevention may be practically possible, the table following is deserving of consideration.

TABLE VII.—*Comparative Suicide Rates by Methods Used, U. S. Registration Area, 1910-1914.*

	Persons.		Males.		Females.	
Method of Suicide.	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.	Suicides.	Rate per 100,000 Population.
By poison	13,995	4.6	8,936	5.8	5,059	3.4
By asphyxia	5,834	1.9	3,946	2.5	1,888	1.3
By hanging or strangulation	7,007	2.3	5,760	3.7	1,247	0.8
By drowning	2,716	0.9	1,748	1.1	968	0.7
By firearms	14,432	4.8	13,211	8.5	1,221	0.8
By cutting or piercing instruments	3,142	1.0	2,762	1.8	380	0.3
By jumping from high places	834	0.3	534	0.3	300	0.2
By crushing	438	0.1	375	0.2	63	—†
Other suicides	391	0.1	228	0.2	163	0.1
Total suicides	48,789	16.1	37,500	24.1	11,289	7.7

The table emphasizes in the case of men that the maximum frequency of suicide results from the use of firearms, whereas among women the highest rate is due to the use of poison. Jumping from high places accounts for a sufficient number of suicides to suggest much better precautions than are frequently made use of to eliminate the temptation, which in the case of the feebly inhibited occasionally becomes overpowering. Some cases have occurred during the last year in which persons with suicidal intent have jumped from very high buildings, to the serious risk of others, and of course with the certainty of death to themselves. The unrestricted, or badly regulated, sale of firearms and poison constitutes, however, the most serious temptation to self-murder, and it is quite possible that the fairly stationary suicide rate prevailing during the past few years is in part attributable to such restrictions as have been adopted by certain States and cities, particularly New York.

* Corrected for difference in length of month.
† Less than one-tenth of 1 per cent.

Slight Decrease This Year.

The suicide problem is not diminished in social importance because of the slight decrease in the rate during the year under review. The evidence is fairly conclusive that in a sufficient proportion of cases the evidence of self-murder is not established to the satisfaction of the coroner or the board of medical inquiry. With an increasing intelligence, it is a foregone conclusion that more subtle methods and means will be employed by the person contemplating self-murder to make it more and more difficult to establish the fact of suicide to the satisfaction of the public. It is therefore a reasonable inference, from such evidence as is available, that the actual mortality from suicide is greater than the recorded mortality as derived exclusively from official sources. The coroner system in the United States is, broadly speaking, far from efficient, and in many cases it is self-evident that mere hearsay evidence of possibly accidental circumstances is considered sufficient to justify a verdict of death by unknown methods or means. Suicides among the wealthy and prosperous are no longer a rare exception, and it is particularly among this class that the evidence of suicide, for family or even for life insurance reasons, would be made particularly difficult of ascertainment to the satisfaction of the coroner or the public. Suicide has become so common that a case of self-murder fails to attract serious attention, and during the year the range in suicide occurrences included a boy of eleven and a man of ninety-four years of age. Cases in which some exceptionally painful or trying disease, particularly cancer, was attributed as an underlying reason for self-murder, are also becoming apparently more frequent, and other evidence is not wanting that there is distinctly a lesser inclination to endure physical suffering, and a lesser willingness to submit to the hardships of life, which it is assumed can be made an end of by self-murder. There is also no longer the social restraint, or sense of personal or community responsibility, for to an increasing extent persons in positions of wide local, and even national, influence commit suicide upon apparently entirely insufficient provocation. Even clergymen and physicians, men apparently in full possession of their faculties, who, it would normally be expected, should be the last to inflict upon the community the sorry fact of self-murder, are to an increasing extent among those who make up the vast aggregate of some eighteen to twenty thousand suicides in the United States throughout the year. Perhaps the most pathetic suicide during 1915 was that of the well-known clown, Slivers, who, after giving pleasure and joy for many years to vast multitudes, died "meanly by his own hand." A deservedly well-known Chicago physician of nation-wide influence in the furtherance of the tuberculosis movement ended his life during the year because of his resentment against being publicly criticised for having failed to attain the practically unattainable. A noted West Point athlete killed himself when his regiment reached Columbus, on the Mexican border. A well-known lawyer, connected with many large corporations and particularly well known in the insurance world, ended his life in practically the same manner as his brother, who had been one of Roosevelt's Rough Riders.

These illustrations are sufficient for the purpose of re-emphasizing the risk of suicide as an increasing hazard in life insurance experience, for even though during the year preceding the rate may have been slightly higher, the mortality in the aggregate is distinctly alarming and sufficiently so as to require serious consideration as a practical question in modern life. Whether a tendency to commit suicide is directly inherited or not, it can no longer be questioned, as shown by the investigation made by Charles B. Davenport and others, that a liability to self-murder runs in families which are scientifically defined as "feebly inhibited." As observed by Dr. Davenport, a suicidal tendency can, not infrequently, "be traced back through three generations, and this is about as far as the memory of man extends." He advances the important conclusion that "suicide following arteriosclerotic depression probably tends to run in families, as the arteriosclerotic basis is still found to do," and while he holds that suicide, in the limited sense of the term, is not inherited, but only a tendency to an impulsion that leads to suicide, he concludes that while many persons may experience the suicidal impulse, "it is the feebly inhibited who give way to it." The investigations by Davenport assume much greater practical significance to life insurance companies than has heretofore been recognized, however intrinsically difficult the scientific considerations may appear to be. In other words, whether it would be feasible on the part of life insurance companies to take into consideration the facts of temperament, and the inheritance of ancestral temperamental traits, in addition to such physical and medical considerations as generally govern the selection of lives for insurance, is secondary to the question, for the time being, as to whether it would not be desirable to attach much more significance to suicide in the family history than is generally the case. The evidence is rapidly accumulating through such researches as have been made through the Eugenics Laboratory, that a suicidal tendency is inherited, or may be considered so for the practical requirements of life insurance companies, and with an increasing tendency, or at least a relatively high tendency, to self-murder, the problem certainly demands more scientific consideration in view of the large amount of insurance obtainable without much difficulty in the case of those who, regardless of the one-year suicide clause, may anticipate the future possibilities of self-murder and provide sufficiently through insurance for the benefit of dependent survivors on that account. It can also be said in this connection that the future experience of life insurance companies with reference to suicide will, in all probability, be quite materially at variance with their past experience, and that adequate consideration should therefore be given to a problem in social pathology which has heretofore been chiefly the concern of those curiously interested in the abnormalities of medicine.—*The Spectator,* November, 25. 1916.

SUICIDE.

The literature of suicide is so extensive that it would serve no useful purpose to enlarge upon the general aspects of a most important problem in medicine and social pathology. Of the earlier English literature, "An Essay Concerning Self-Murther wherein is Endeavored to Prove that It Is Unlawful According to Natural Principles. With some Considerations upon What Is Pretended from the Said Principles," was published in London in 1700 by J. Adams, rector of Saint Alban, and Chaplain in Ordinary to His Majesty. The arguments against suicide on moral and spiritual grounds were as conclusive at the time as they are today. Commencing with 1716, a series of papers was published by clergymen and others, concluding with a most interesting tract on "Cato Condemned: Or, The Case and History of Self-Murder, Argued and Displayed at Large, on the Principles of Reason, Justice, Law, Religion, Fortitude, Love of Ourselves and Our Country, and Example," with "A Solution of This Problem, Whether a Man of Sense, Goodness and Courage, Ever Did, or Can, Kill Himself? Particularly Calculated to Prevent It in the English Nation." In 1767 there was published at Boston a sermon on "The Sin of Suicide Contrary to Nature. A Plain Discourse Occasioned by the Late Perpetration of That Heinous Crime: Published for a Warning to Survivors; At the General Desire of the Hearers: Unto Whom It Is Dedicated." The author of this sermon was the Rev. Simon Phillips, Pastor of the South Church in Andover. In 1790 an elaborate work entitled "A Full Inquiry into the Subject of Suicide" was published in London, in two volumes, by the Rev. Charles Moore, which to this day constitutes one of the most useful contributions to the subject, including historical and legal observations of great value, and concluding with a chapter on "Some Precautions or Preservatives Proposed against Falling Under a Temptation to the Commission of Suicide." The literature of the nineteenth and early twentieth centuries presents no new aspects of this lamentable phase of modern life. The works of Morselli and Strahan may be referred to as excellent presentations of the general facts of suicide, with special reference to its statistical aspects. One of the most recent contributions of great value is the "Statistics of Suicide in the Kingdom of Saxony," by Dr. O. Kurten, published in Leipzig and Berlin, 1913. All that has been written on the subject merely tends to confirm earlier views and conclusions that suicide, in a specialized sense, is a problem of unsoundness of mind and falls within the borderland of sanity and insanity. All the efforts made to counteract a suicidal tendency by an appeal to reason, morality and religion have apparently had only slight effect, since practically throughout the civilized world the tendency to self-murder has been, and continues to be, on the increase. The most recent effort in this direction is carried on by the Rev. H. M. Warren, of the Parish of All-Strangers, New York City, who is daily informed by the coroner of all cases of suicidal attempts, for the purpose of such relief, assistance and advice as the case may call for.

The seriousness of the suicide problem, considered with special reference to the United States, is emphasized in the table following, which presents an estimate of the probable number of suicides annually in the United States during the period 1900-15, on the basis of the suicide mortality rate for the registration area:

Estimate of the Suicide Mortality of the Continental United States, 1900-1915.

	Population of Continental U. S.	Registration Area Rate per 100,000.	Estimated Suicides in the U. S.
1900	75,994,575	11.5	8,700
1901	77,592,344	12.2	9,500
1902	79,190,113	12.7	10,100
1903	80,787,882	13.8	11,100
1904	82,385,651	14.7	12,100
1905	83,983,420	16.0	13,400
1906	85,581,189	13.9	11,900
1907	87,178,958	15.7	13,700
1908	88,776,727	17.8	15,800
1909	90,374,496	16.5	14,900
1910	91,972,266	16.0	14,700
1911	93,570,036	16.2	15,250
1912	95,167,806	16.0	15,200
1913	96,765,576	15.8	15,300
1914	98,363,346	16.6	16,300
1915	99,961,116	17.0*	17,000

It is shown by this table that the suicide rate in the United States has increased since 1900 from 11.5 to 17.0 per 100,000 of population. The actual increase in the rate was, therefore, 5.5 per 100,000 of population, equivalent to an excess in the rate for 1915 of 43.5 per cent over the rate for 1900. The actual increase in the number of suicides was approximately from 8,700 in 1900 to 17,000 in 1915. These estimates require to be accepted with extreme caution, since the borderland cases of accidents and homicides constitute a doubtful group, which does not for the time being admit of exact analysis. The statistical evidence, however, is absolutely conclusive that the probable number of deaths due to suicide in the continental United States at the present time (1915) is about 17,000, and if allowance is made for doubtful cases otherwise diagnosed, or certified to at coroners' inquests, it is reasonably possible that the number of suicides amounts annually to not less than 20,000.

Since the suicide rate of cities is generally higher than that of rural communities the following table is included for the purpose of emphasizing the degree of suicidal frequency in fifty American cities during the period 1890-1914, separately considered by single years and by quinquennial periods for the quarter century:

Mortality from Suicide in Fifty American Cities, 1890-1914.

(Rate per 100,000 of Population.)

Year.	Population.	Suicides.	Rate.
1890	10,799,626	1,345	12.5
1891	11,270,519	1,577	14.0
1892	11,740,950	1,468	12.5
1893	12,047,729	1,913	15.9

* Estimated.

Year.	Population.	Suicides.	Rate.
1894	12,352,080	1,947	15.8
1895	12,778,209	2,002	15.7
1896	13,216,674	2,162	16.4
1897	13,538,278	2,410	17.8
1898	13,942,147	2,434	17.5
1899	14,269,472	2,367	16.6
1900	14,703,398	2,494	17.0
1901	15,126,091	2,573	17.0
1902	15,549,790	2,875	18.5
1903	15,973,505	3,181	19.9
1904	16,397,223	3,392	20.7
1905	16,847,630	3,276	19.4
1906	17,350,275	3,179	18.3
1907	17,852,926	3,498	19.6
1908	18,355,581	4,086	22.3
1909	18,858,238	3,963	21.0
1910	19,360,890	3,895	20.1
1911	19,863,542	3,926	19.8
1912	20,365,056	3,878	19.0
1913	20,867,602	3,918	18.8
1914	21,370,509	4,420	20.7
1890–94	58,210,904	8,250	14.2
1895–99	67,744,780	11,375	16.8
1900–04	77,750,007	14,515	18.7
1905–09	89,264,650	18,002	20.2
1910–14	101,827,599	20,037	19.7

It is shown by this table that there was a persistent increase in the suicide rate of American cities during the first twenty years of the period under observation, while the rate during the last five years has attained to apparently a stationary condition. The rate now, however, is relatively so high that a much further increase is not to be anticipated.

Considered by quinquennial periods, it appears that the suicide rate of American cities during the last twenty years has increased from an average of 16.8 during the five years, 1895-1899, to 19.7 during the five years, 1910-1914. The statistical evidence is, therefore, quite conclusive that the suicidal tendency is distinctly on the increase in American cities, although, subject to fluctuation, attributable to more or less profound social and economic changes.

The degree of suicidal frequency varies materially for the different geographical divisions of the country, as shown by the summary statistics, presented in an abbreviated form in the table below:

Geographical Distribution of Suicides, U. S. Registration States, 1909-1913.
(Rate per 100,000 of Population.)

States.	Number of States.	Number of Suicides.	Rate.
New England and Middle Atlantic	9	19,590	14.8
Southern	4	1,674	9.8
Southern, white population	....	1,567	11.2
Southern, colored population	....	107	3.3
North Central	7	12,318	14.8
Rocky Mountain	3	1,509	20.6
Pacific Coast	2	5,026	27.1
Average for 25 States	25	40,117	15.5

This table is subject to the serious limitation of inadequate returns for the Southern States of the United States, but in the main the facts disclosed conform to the results of other statistical investigations, chiefly, however, with reference to the urban population. The table shows that the degree of suicidal frequency is highest on the Pacific Coast, where the mortality is 27.1 per 100,000 of population, and lowest in the Southern States, where the rate is 9.8. If, however, allowance is made for the element of color, it appears that the suicide rate for the white population of the South is 11.2 per 100,000, against a rate of only 3.3 for the colored.

All of the statistical studies of suicide prove that the male sex is decidedly more inclined to self-murder than the female sex. In the U. S. registration area, during the period 1904-13, the male suicide rate was 24.0 per 100,000, against a rate of 7.5 for females. The table following exhibits the details of the suicide mortality by sex for each of the years 1904-13, and for the two quinquennial periods, including the population estimates for intercensal years:

Mortality from Suicide, by Sex, U. S. Registration Area, 1904-13.
(Rate per 100,000 of Population.)

	Males.			Females.		
Year.	Midyear Population.	No. of Suicides.	Rate.	Midyear Population.	No. of Suicides.	Rate.
1904	16,856,270	3,775	22.4	16,492,867	1,137	6.9
1905	17,274,352	4,121	23.9	16,820,253	1,317	7.8
1906	21,322,133	4,521	21.2	20,661,286	1,332	6.4
1907	21,899,144	5,185	23.7	21,117,846	1,560	7.4
1908	23,876,529	6,429	26.9	22,913,384	1,903	8.3
1909	26,020,431	6,494	25.0	24,850,087	1,908	7.7
1910	27,606,526	6,610	23.9	26,237,370	1,980	7.5
1911	30,463,411	7,389	24.3	28,812,566	2,233	7.8
1912	31,128,193	7,426	23.9	29,298,940	2,230	7.6
1913	32,607,069	7,709	23.6	30,691,649	2,279	7.4
1904–08	101,228,428	24,031	23.7	98,005,636	7,249	7.4
1909–13	147,825,630	35,628	24.1	139,890,612	10,630	7.6

Even more important than the sex factor is the incidence of age. Suicide is naturally very rare during early life, but evidence is not wanting that suicide among children is on the increase in this as well as in many other civilized countries. The table following shows the rate of suicidal frequency, by divisional periods of life, with distinction of sex, for the U. S. registration area, 1904-13:

Mortality from Suicide, by Age and Sex, U. S. Registration Area, 1904-13.
(Rate per 100,000 of Population.)

	Males			Females		
Ages at death	Estimated aggregate population.	No. of suicides.	Rate.	Estimated aggregate population.	No. of suicides.	Rate.
Under 5 yrs.	25,614,623	.....	.....	25,048,079	.....	.....
5-9	23,388.259	5	0.0	23,025,413	2	0.0
10-14	22,189,186	132	0.6	21,966,362	100	0.5
15-24	47,163,061	6,041	12.8	47,078,302	4,350	9.2
25-34	44,409,145	11,605	26.1	40,703,104	4,476	11.0
35-44	35,466,490	12,828	36.2	32,072,683	3,432	10.7

Ages at death	Males			Females		
	Estimated aggregate population.	No. of suicides.	Rate.	Estimated aggregate population.	No. of suicides.	Rate.
45-54	24,908,648	12,749	51.2	22,399,785	2,684	12.0
55-64	14,715,018	9,121	62.0	13,879,653	1,634	11.8
65-74	8,010,576	4,880	60.9	8,129,638	837	10.3
75-84	2,760,125	1,737	62.9	3,039,153	291	9.6
85 and over	428,927	239	55.7	554,076	42	7.6
Unknown	.....	322	.....	.....	31	.....
Total	249,054,058	59,659	24.0	237,896,248	17,879	7.5

There is obviously a very rapid rise in the rate of suicidal frequency during youth and early adolescence, a fairly stationary rate being reached after age sixty-five, when however, the returns are hardly sufficient for a safe generalization. It is rather striking to find that the maximum rate of frequency for males is reached at ages seventy-five to eighty-four, and for females at ages forty-five to fifty-four. There are reasons for believing that a still more extensive experience would confirm this conclusion to the extent that the slight incongruities at the further advanced ages would be eliminated. At no period of adult life is the female suicide rate as high as the male rate. From a medical and medico-legal point of view the preceding table is of considerable practical importance. It is true that the suicidal impulse is not measured with absolute precision by the suicidal mortality statistics, since it is conceivable that attempts may be more common, but less successful, at earlier ages, partly on account of the want of knowledge and partly because of lack of the required courage. The influence of this uncertainty, however, is not likely to be sufficient to materially impair the conclusion that among men the relative frequency of suicide, in proportion to the population living at corresponding ages, is greatest at ages seventy-five to eighty-four, followed by the age period fifty-five to sixty-four; and among women, at ages forty-five to fifty-four, followed by the age period fifty-five to sixty-four. The largest actual number of suicides, however, during the period under observation, occurred among men at ages thirty-five to forty-four, and among women at ages twenty-five to thirty-four. Suicide would, therefore, seem to occur somewhat earlier in life among women than among men.

Suicide is rare among savage and relatively infrequent among barbarous races. The tendency to self-murder increases with the progress of civilization and is proportionate to the complexity of modern social and economic life. In thirty large southern cities of the United States the suicide rate during 1906-12 was only 5.9 per 100,000 for the colored, against 22.6 for the white population. In Jamaica, where the population is almost exclusively colored, the suicide rate during 1910-14 was only 2.0 per 100,000. In contrast, however, the suicide rate of the colored population of Cuba during 1910-13 was 15.0, against 18.0 for the white population. The colored population of Cuba, however, is much more intermixed with the white element than is the colored population of Jamaica. In Hawaii the average suicide rate for 1911-15 was 23.1 per

100,000. There were no suicides among the Spaniards during this period, and the rate was lowest among the Porto-Ricans (4.0) and the Portuguese (4.3). Among the part-Hawaiians the rate was 7.2, among the pure Hawaiians 10.1. Among the other racial elements the rates were as follows: Filipinos 12.1; Japanese 26.5; Chinese 35.7; other Caucasians than Spaniards and Portuguese 36.3; and all others 61.8. These rates cannot be considered entirely conclusive, but they are suggestive of a relatively low suicide rate among the primitive population and a relative high rate among the Chinese and Japanese. This conclusion is sustained by the suicide statistics of the Pacific Coast.

Suicide among children is more common than is generally assumed to be the case. There are reasons for believing that the tendency to errors in diagnosis, or even the falsification of death certificates, is more pronounced in such cases than at older ages. Suicide among the very young seems so unnatural an act that there must necessarily be a strong reluctance on the part of physicians and coroners to interpret the available evidence against the parents and the child concerned. Since there are reasons for believing that child suicides are in close relation to erroneous educational methods, it is of the utmost importance that more serious consideration be given to this most lamentable aspect of the suicide problem. Deaths from self-murder are not infrequent in extreme old age, for, as shown by the returns for the U. S. registration area for the period 1904-13 there were 3,896 suicides of males at ages seventy and over, and 654 suicides of females. Proportionately to the population of corresponding ages, however, there is a distinct diminution in the suicidal tendency after age eighty-five among men, and after age seventy-five among women. Thus far, however, no thorough study has been made of the correlation of suicide to senility, but the available evidence would seem to justify the conclusion that self-murder in extreme old age is more common at the present time than in the past, just as, conversely, this appears also true of the suicidal impulse among young children.

Almost without exception suicides are more common in cities than in rural districts. In the United States registration states, during the period 1904-13, the urban suicide mortality rate was 17.7 per 100,000 of population, against a rural rate of 12.2. The urban rate was, therefore, 45.1 per cent in excess of the rural.

Mortality from Suicide, Urban and Rural, U. S. Registration States, 1904-13.
(Rate per 100,000 of Population.)

	Urban				Rural		
Year.	No. of states.	Population.	No. of suicides.	Rate	Population.	No. of suicides.	Rate.
1904	10	12,029,302	1,668	13.9	9,307,413	943	10.1
1905	10	12,372,228	1,853	15.0	9,364,680	1.087	11.6
1906	15	18,195,041	2,702	14.9	15,640,988	1,621	10.4
1907	15	18,737,525	3,133	16.7	15,871,371	1,894	11.9
1908	17	20,417,270	3,992	19.6	18,288,591	2,514	13.7
1909	18	23,066,405	4,382	19.0	21,215,280	2,679	12.6
1910	21	25,187,805	4,513	17.9	22,619,961	2,796	12.4
1911	23	27,485,457	5,256	19.1	26,899,777	3,379	12.6
1912	23	28,129,824	5,116	18.2	27,122,299	3,459	12.8
1913	24	29,244,160	5,432	18.6	29,068,435	3,529	12.1
1904-13		214,865,017	38,047	17.7	195,398,795	23,901	12.2

The exact correlation of suicide to season has also not as yet been determined with the required degree of scientific accuracy and completeness. The observations of Dexter on "Weather Influences" may be referred to as exceptionally useful in the furtherance of this line of specialized research. Much more, however, is required than has heretofore been possible on the basis of crude statistics by months or weeks, or even days, since obviously weather influences react upon much shorter periods of time. An analysis of suicide by days of the week, and hours of the day, by Prof. William B. Bailey, in the *Yale Review,* as quoted by Dexter, shows that of 9,535 cases, 3,687 occurred before noon, and 5,848 during the remainder of the day. Of the cases of murder followed by suicide, roughly, seventy per cent were found to have occurred during the six hours from 6.00 P. M. to midnight. Dexter also quotes from the treatise by Strahan, that "The yearly variation in self-destruction differs from these weekly and hourly variations in this: that instead of the exciting cause coming to the individual from the outside world, it comes to him from within. There is an annual rhythmic rise and fall which affects all animate nature. With the approach of spring and the increase of temperature, there is a general wakening from the period of comparative rest in which the preceding cold season has been passed. With this awakening, every function is quickened and the procreative, which is the highest of all functions, is excited to most vigorous action. During this period of spring and early summer the organism is working at its highest tension, and every function of mind and body is more active than at any other period of the year. It is not surprising, then, that at this portion of the yearly cycle we should meet with the most breakdowns of the machine." The influence of weather conditions has been investigated with much greater thoroughness and in more exact conformity to scientific requirements, by Prof. Ellsworth Huntington in his treatise on "Civilization and Crime." Thus far, however, no investigation of this kind can be considered entirely conclusive. The table following is intended merely as an illustration of the seasonal fluctuation in suicide in the combined area of twenty-one registration states, for 1910-13:

Mortality from Suicide, by Season, U. S. Registration States, 1910-13.
(Monthly Rate per 100,000 Population.)

Month.	Aggregate population.*	No. of suicides.	Monthly rate.
January	198,913,288	2,269	1.14
February	181,542,776	2,178	1.20
March	199,558,042	2,673	1.34
April	193,427,607	2,735	1.41
May	200,202,796	2,876	1.44
June	194,061,408	2,857	1.47
July	200,847,550	2,668	1.33
August	201,169,932	2,557	1.27
September	194,987,450	2,485	1.27
October	201,814,686	2,446	1.21
November	195,611,389	2,434	1.24
December	202,459,440	2,384	1.18
Winter	580,014,106	7,120	1.23
Spring	587,691,811	8,468	1.44
Summer	597,004,932	7,710	1.29
Fall	599,885,515	7,264	1.21
Monthly average	2,364,596,364	30,562	1.29

* Standardized for variation in length of months.

This table has been corrected for the varying lengths of the months, but in brief the rate was highest during the spring months, or 1.44 per 100,000 of monthly population, followed by a rate of 1.29 for the summer months, 1.23 for the winter months, and 1.21 for the fall months. The highest monthly incidence occurred in June, when the rate attained to 1.47 per 100,000 of population.

The method of suicide varies according to sex, and quite materially for the different civilized countries of the world. The table following exhibits the methods employed in the suicides occurring in the United States registration area, 1910-13, arranged in conformity to the international classification.

Mortality from Suicide, by Method and According to Sex.
(U. S. Registration Area, 1910-13.)

Methods.	Males.		Females.	
	No. of suicides.	Per cent.	No. of suicides.	Per cent.
Firearms	10,201	35.0	945	10.8
Poison	7,040	24.2	3,955	45.4
Hanging or strangulation	4,499	15.5	956	11.0
Asphyxia	2,981	10.2	1,434	16.5
Cutting or piercing instruments	2,185	7.5	299	3.4
Drowning	1,363	4.7	734	8.4
Jumping from high places	387	1.3	222	2.5
Crushing	298	1.0	51	0.6
Other methods, or not stated	180	0.6	126	1.4
Total	29,134	100.0	8,722	100.0

It is shown by this table that the predominating method of suicide among men was by firearms, and among women it was by poison. It is regrettable that details should not be available to disclose the nature of the poison employed, since restrictive measures aiming at more effective control in the sale of poison would necessarily have to be based upon the kind of poison made use of. Much better and more useful returns of this kind are published annually by the Registrar-General for England and Wales. The large proportion of suicides by firearms is obviously suggestive of more effective legislative restrictions in the sale of dangerous weapons.

The alleged motives for suicide are the least satisfactory statistical returns even under the best possible conditions. Probably the most trustworthy statistics are those of France, which are presented in the table below, for the period of 1906-10:

Suicide According to Motives, in France (1906-1910).

Motive.	Males.		Females.	
	No. of suicides.	Per cent.	No. of suicides.	Per cent.
Poverty or fear of poverty	2,905	7.9	766	6.9
Economical embarrassment, loss of position, loss by lawsuit or by gambling	2,337	6.3	278	2.5
Domestic troubles	3,118	8.4	1,257	11.3
Disappointment in love, jealousy	1,150	3.1	991	8.9
Debauchery, misconduct	655	1.8	155	1.4
Drunkenness	5,274	14.3	631	5.7

Motive.	Males.		Females.	
	No. of suicides.	Per cent.	No. of suicides.	Per cent.
Desire to evade judicial or disciplinary punishment	781	2.1	106	1.0
Physical suffering	8,191	22.2	2,415	21.8
Disgust with military service	172	0.5	.....	.....
Various difficulties	2,367	6.4	804	7.3
Mental affections	5.059	13.7	2,443	22.0
Unknown motives	4,909	13.3	1,235	11.2
Total	36,918	100.0	11,081	100.0

According to this analysis the predominating motive for suicide among men was physical suffering; and among women mental affections, and physical suffering to practically the same degree. From a medical point of view this evidence is extremely suggestive. For the United States the evidence is quite conclusive that unwillingness to endure physical suffering is, to an increasing extent, an underlying cause of, or reason for, self-murder. A large number of individual cases are available to prove that at least the alleged motive was an unwillingness to undergo a surgical operation or to continue the unavoidable endurance of physical suffering. In the case of cancer particularly this has been so to a sufficient extent to require consideration in connection with the question as to the actual or apparent increase in cancer frequency. The preceding table, which has been derived from the judicial statistics of France, may be accepted as an approximately trustworthy indication of the probable underlying motives for suicide, and there are no reasons for believing that the returns, if available for this country, would differ very materially from those of the French Republic.

International statistics of suicide are of doubtful intrinsic conclusiveness. Methods of coroners' inquests, death certification, etc., vary sufficiently to invalidate the scientific conclusiveness of the returns for certain countries with fundamentally different codes of judicial procedure as well as essentially different manners and customs from those common to the United States and other countries with populations largely of Anglo-Saxon origin. The crude suicide rates, unless standardized for variations in age and sex distributions, are also likely to be seriously impaired for comparative purposes on this ground in addition to the underlying difficulty of medical diagnosis, coroners' inquests, and death certification. Since, however, international statistics are quite generally made use of in connection with medical and other considerations of the suicide problem, it has seemed best to include the following table, which has been derived from official sources:

Mortality from Suicide Throughout the World (1902-1911).
(Rate per 100,000 of Population.)

	1902-11	1902-06	1907-11	Changes in the rate during the last decade. Actual.	Per cent.
Switzerland	22.7	22.6	22.9	+0.3	1.3
France	.....	.....	22.0	.....	.....
Germany	21.4	21.1	21.7	+0.6	2.8
Hungary	18.4	18.0	18.8	+0.8	4.4
Austria	18.1	17.6	18.7	+1.1	6.3
Japan	17.8	17.8	17.8	.....	.....
Sweden	15.5	14.4	16.6	+2.2	15.3
U. S. Registration Area	15.5	14.2	16.4	+2.2	15.5
Belgium	12.9	12.5	13.2	+0.7	5.6
Australia	12.1	12.6	11.7	—0.9	7.1
England and Wales	10.2	10.2	10.2	.....	.....
Uruguay	8.8	8.9	8.7	—0.2	2.2
Italy	7.3	6.5	8.1	+1.6	24.6
Holland	6.6	6.6	6.7	+0.1	1.5
Scotland	5.8	6.1	5.5	—0.6	9.8
Norway	5.1	5.2	5.1	—0.1	1.9
Ireland	3.4	3.4	3.4	.....	.....
Spain	2.5	2.4	2.6	+0.2	8.3
Total	14.6	14.1	15.0	+0.9	6.4

During the ten-year period under consideration the suicide rate increased from an average of 14.1 per 100,000 of population during 1902-06 to 15.0 during 1907-11. The rate was highest for Switzerland, or 22.9 per 100,000 of population during 1907-11, and lowest for Spain, where the rate during the same period was only 2.6. There are no convincing reasons for questioning the approximate accuracy of this comparison, and the data, in the main, may be relied upon as conclusive. The table has been limited to countries for which the returns are of a sufficient degree of intrinsic trustworthiness to justify their being utilized for comparative purposes. As an additional illustration, however, the following table of the suicide rates of large cities throughout the world is included, since obviously the statistics of cities are, in the main, more trustworthy than those available for large, political areas:

Mortality from Suicide in Large Cities Throughout the World.
(Rate per 100,000 of Population.)

City	Country.	Period.	Rate.
San Francisco	United States	1904-13	48.0
Leipzig	Germany	1909-13	37.9
Hamburg	Germany	1904-13	36.0
Berlin	Germany	1904-13	34.3
Dresden	Germany	1904-13	34.0
Stockholm	Sweden	1903-12	33.0
St. Louis	United States	1904-13	32.8
Frankfort a/M	Germany	1904-13	32.7
Vienna	Austria	1903-12	30.5
Denver	United States	1904-13	29.8
Brussels	Belgium	1903-12	28.5
Zurich	Switzerland	1903-12	28.2
Buenos Aires	Argentine Republic	1904-13	27.2
Copenhagen	Denmark	1903-12	27.1
Paris	France	1902-11	25.5
Havana	Cuba	1903-12	23.0

City	Country	Period.	Rate.
Milan	Italy	1903-12	22.7
Chicago	United States	1904-13	21.7
Rome	Italy	1904-12	21.6
Munich	Germany	1903-12	21.5
New Orleans	United States	1904-13	18.7
Cleveland	United States	1904-13	18.6
New York City	United States	1904-13	17.8
Basel	Switzerland	1903-12	17.5
Baltimore	United States	1904-13	16.7
Boston	United States	1904-13	16.2
Philadelphia	United States	1904-13	16.2
Rio de Janeiro	Brazil	1904-13	16.0
Tokio	Japan	1904-12	15.8
Antwerp	Belgium	1903-12	15.4
Sydney	Australia	1904-13	13.2
Moscow	Russia	1903-12	12.9
Madrid	Spain	1901-10	12.3
London	England	1904-13	11.4
Naples	Italy	1903-12	10.8
Melbourne and suburbs	Australia	1904-13	10.8
Birmingham	England	1904-13	10.4
Manchester	England	1904-13	9.7
Edinburgh	Scotland	1905-13	9.4
Calcutta	India	1904-13	9.3
Amsterdam	Holland	1904-13	7.6
Liverpool	England	1904-13	7.2
Christiania	Norway	1903-12	7.1
Toronto	Canada	1904-13	5.5
Montevideo	Uruguay	1903-12	5.0
Belfast	Ireland	1904-13	4.6
Montreal	Canada	1904-13	4.3
Dublin	Ireland	1904-13	3.3
Mexico City	Mexico	1905-13	2.2
Manila	Philippine Islands	1904-13	2.0

This table, in each and every case, gives an average rate for a period of sufficient length, which in the large majority of cases covers the years 1904-13. For a few of the cities, however, the period has been made to terminate with an earlier year on account of the non-availability of more recent data. Throughout, however, the statistics may be considered strictly comparable, and the table brings out the surprising fact that the highest suicide rate for any large city of the world is for San Francisco, while the lowest rate is for Manila, Philippine Islands.

In the strict scientific sense of the term it is, to say the least, misleading to speak of the heredity of suicide, although the inheritance of a suicidal tendency in persons with a family record of self-murder has been conclusively established by numerous trustworthy cases. The statement of Strahan that a careful study of the family histories of suicide demonstrates that frequently suicide "runs in families" as suicide, is quite in conformity to the facts of observed experience. This conclusion, however, does not justify the common error of assuming that suicide is directly inherited, or transmitted from parent to child, in the same sense as specific racial or individual traits or characteristics are transmitted, from one generation to another. Suicide is not an entity in the sense of a specific disease, like leprosy or tuberculosis, but it is a phenomenon of wrongful conduct arising out of a more or less disordered state of mind. Whether it is true, as asserted by Strahan, that "we know as a fact that

there is no abnormal constitutional state more commonly transmitted from parent to child than this tendency to self destruction," the evidence made available through the analysis of family records by Davenport is conclusively to this effect. In a discussion of the feebly inhibited, with special reference to the specificity of the suicidal impulse, Davenport concludes that "suicide is not inherited, but only a tendency to an impulse that leads to suicide" and he points out that "the impulse is indeed quite distinct from the act." This conclusion, based upon perhaps the most careful study made of the subject, is of exceptional practical importance, for it justifies the further conclusion that most persons inhibit the impulse, but it is the feebly inhibited who give way to it. Davenport refers to forty families in eighteen cases of which one of the parents of a suicide also committed suicide. The logical result of such investigations is to emphasize the urgency of a better practical understanding of the underlying physiological and psychological considerations which condition, if they do not determine and even pre-determine, the correlation of suicide to temperament.

An exceedingly important but much neglected aspect of the suicide problem is the question of a directly or indirectly inherited tendency to self-murder. The number of family records subjected to critical examination is too limited in extent to justify far-reaching conclusions at the present time. As said in my discussion of the suicide record for 1915 (*Spectator,* Nov. 30, 1916): Whether a tendency to commit suicide is directly inherited or not, it can no longer be questioned, as shown by the investigations made by Charles B. Davenport and others, that a liability to self-murder runs in families which are scientifically defined as "feebly inhibited." As observed by Dr. Davenport, a suicidal tendency can, not infrequently, "be traced back through three generations, and this is about as far as the memory of man extends." He advances the important conclusion that "suicide following arteriosclerotic depression probably tends to run in families, as the arteriosclerotic basis is still found to do," and while he holds that suicide, in the limited sense of the term, is not inherited but only a tendency to an impulsion that leads to suicide, he concludes that while many persons may experience the suicidal impulse, "it is the feebly inhibited who give way to it." The investigations by Davenport are of much greater practical significance to life insurance companies than has heretofore been recognized, however intrinsically difficult the scientific considerations may appear to be. In other words, whether it would be feasible on the part of life insurance companies to take into consideration the facts of temperament, and the inheritance of ancestral temperamental traits, in addition to such physical and medical considerations as generally govern the selection of lives for insurance, is secondary to the question, for the time being, as to whether it would not be desirable to attach more serious significance to suicide in the family history than is generally the case.

Among other involved aspects of the suicide problem, admirably summarized by Dr. George M. Gould, in a paper on "The Mysteries and Sources of Suicide," *Medical Record,* Sept. 8, 1906, reference may be made to secret drug-taking, venereal diseases, scoliosis and diseases consequent upon eye-strain, other than spinal curvature. Further research work in these directions would unquestionably reveal much valuable in-

formation, useful to the effort at suicide prevention, which is by no means as hopeless as generally assumed. The effort at prevention must, however, rest upon much more qualified technical knowledge than is common to the average medical practitioner at the present time. As well said by Dr. Tom R. Williams, after pointing out that the suicide's common sense, religion, and ordinary medical advice have generally failed, "special psychopathological knowledge is required," for "it is by means of this that the patient acquires an understanding of the perverted adaptability and learns means of adjustment." Obviously the necessary reeducation of the patient requires a teaching capacity of a high order. In a large number of cases, however, there are reasons for believing that the fundamental causative factor is eye-strain and that the remedial measures lie rather within the province of the oculist or expert in errors of refraction than within the field of the general practitioner.

The foregoing statistical and other observations are intended to emphasize the more important practical aspects of the suicide problem, which, however, is entirely too complex to permit of complete presentation within the present limitations. For additional data, with special reference to life insurance, the annual suicide records published in *The Spectator,* a New York insurance periodical, should be consulted.—*Reference Handbook of the Medical Sciences,* October, 1917.

THE SUICIDE RECORD OF 1916.

The suicide record for 1916 indicates the profound influence of the war by a relatively material reduction over former years. The reduction in the rate, however, is most pronounced in the communities with rates normally below the general average for American cities and least pronounced in the communities in which the degree of suicidal frequency has for many years been decidedly excessive. In the cities having a rate of less than 10 per 100,000 of population the average rate during 1916 was 7.5, against an average of 11.7 during the five years ending with 1915, a decrease of 4.2 per 100,000, equivalent to 35.9 per cent. In cities having a rate of 10 to 20 per 100,000 the average rate during 1916 was 16.1, against 18.1 during the preceding five years, or a reduction of 2.0 per 100,000, equivalent to 11.0 per cent. In cities having a rate in excess of 20 per 100,000 during 1916 the average rate was 26.0 per 100,000, against 27.1 during the preceding five years, the reduction having been 1.1 per 100,000, equivalent to 4.1 per cent.

The marked reduction in the rate of suicidal frequency in communities with a normally low rate of suicide occurrence may safely be attributed to the direct effect of profound social and economic changes in consequence of the war. The effect of such changes in the neutral countries of Europe became early apparent, as shown by the returns for the year 1915, which, in the case of Denmark and Switzerland, show a reduction from the average for the preceding five years. For Denmark the rate for 1915 was 17.6 per 100,000, against 18.6 in 1914, and 19.1 during 1909-1913. In the Netherlands the rate during 1915 was 6.1 per 100,000, against 6.0 during 1914, and 6.5 during the five years ending with 1913. The rate for Switzerland during 1915 was 21.5 per 100,000, against 24.3 during 1914, and 23.4 during the five years ending with 1913.

Statistics of European Countries.

Outside of the neutral countries of Europe the only returns available are for England and Wales. The rate for 1915 was only 8.4 per 100,000, against 10.1 during 1914, but during the preceding five years the rate was 9.9. The English rate has been gradually falling since 1909, having reached a previous minimum of 9.6 per 100,000 during 1913, subsequent to which there was a rise to 10.1 during 1914, but a decline to 8.4 during 1915.

The corresponding data for the Province of Ontario, Canada, are of interest as indicating that during the last three years for which the information is available the rate was lowest during 1915, or 5.3 per 100,000, against 5.5 during 1914 and 6.3 during 1913.

Comparing these results with the American experience for 1916, it appears that the rate was only 17.6 per 100,000 in the latter, or the lowest on record since 1906. During 1915 the average rate for 100 American cities was 20.2 per 100,000, and during 1914 it was 20.7. The marked reduction in the rate during 1916 may safely, and in a large measure, be attributed to the war.

As evidence partly confirming this conclusion, reference may be made to the interesting fact that the rate of business failures during 1916 was the lowest on record for the last three years, or only 10.0 per 1000 business concerns, against 13.2 during 1915 and 11.0 during 1914.

Relation of Suicide Rate to Size of City.

The local suicide rate is furthermore affected by the size of cities, as shown in the table below, which gives separately the returns for 73 cities having a population of less than 250,000, and 27 cities having a population of 250,000 and over. In the group of relatively small cities the average rate for 1916 showed a decrease of 2.1 per 100,000 of population, or 11.5 per cent, against a decrease of 2.7 per 100,000, or 13.0 per cent in the group of large cities. There was, therefore, apparently no significant difference in the relative decline in the two groups of cities, the correlation being decidedly more pronounced in the case of cities, as previously stated, with a suicide rate persistently below the normal. The analysis in detail is given in the following table:

TABLE IV.—*Suicides in 100 American Cities by Size, 1906-1916.*
(Death Rates per 100,000 of Population.)

Size of Cities in 1916.	No. of Cities.	—1906-1910— Suicides.	—1906-1910— Rate.	—1911-1915— Suicides.	—1911-1915— Rate.	——1916—— Suicides.	——1916—— Rate.	Decrease in the rate to that of 1911-1915 Actual.	Decrease in the rate to that of 1911-1915 Percent.
Under 250,000	73	4,320	16.5	5,388	18.3	1,045	16.2	2.1	11.5
250,000 and over	27	16,340	20.7	18,664	20.7	3,480	18.0	2.7	13.0
Average for 100 Cities	100	20,660	19.6	24,052	20.1	4,525	17.6	2.5	12.4

A more interesting and conclusive statement of the geographical incidence of suicide is presented in the following table, according to which the rate decreased in every section of the country, but actually and relatively the decrease was most pronounced in the group of cities of the Rocky Mountain States:

TABLE V.—*Geographical Incidence of Suicides in the United States, 1906-1916.*
(Rate per 100,000 of Population.)

	No. of Cities.	—1906-1910— Suicides.	—1906-1910— Rate.	—1911-1915— Suicides.	—1911-1915— Rate.	——1916—— Suicides.	——1916—— Rate.	Decrease in the rate to that of 1911-1915 Actual.	Decrease in the rate to that of 1911-1915 Percent.
Eastern Cities	55	9,518	17.1	10,300	16.4	1,912	14.3	—2.1	12.8
Central Cities	19	6,481	21.6	7,906	23.1	1,541	21.1	—2.0	8.7
Southern Cities	14	1,832	17.2	2,056	17.7	381	15.7	—2.0	11.3
Rocky Mtn. Cities	3	434	26.5	518	26.4	65	15.0	—11.4	43.2
Pacific Coast Cities	9	2,395	33.3	3,272	34.4	626	28.5	—5.9	17.2
100 Americ'n Cities	100	20,660	19.6	24,052	20.1	4,525	17.6	—2.5	12.4

The geographical distribution of suicidal frequency in correlation to social, economic and weather conditions has not as yet been made the subject of a qualified statistical inquiry. The indications are that a

strictly scientific investigation would disclose facts of considerable practical importance to those interested or concerned with the methods and means of suicide prevention, than which there is perhaps no more neglected, though decidedly promising, field of social reform.

Weather Influence on Suicide.

The correlation of suicide occurrence to season was some years ago made the subject of special consideration by Edwin Grant Dexter, in a treatise on "Weather Influences." In the table below the monthly distribution of suicides in the United States registration area, during the five years ending with 1915, has been corrected for the varying lengths of the months, and it is shown that the maximum of suicides in this country occurs during the month of May, and the minimum during the month of December. The range is from 9.4 per cent of the total annual number during the month of May to 7.5 per cent during the month of December. By quarters of the year, the largest number of suicides occurs during the spring, or 27.8 per cent, and the smallest number during the autumn, or 23.3 per cent. The differences are hardly sufficiently pronounced to justify definite conclusions regarding the influence of weather conditions, which, however, upon qualified analysis, would probably be found to concern only a portion of the annual number, and sufficiently so as to justify serious medical consideration.

TABLE VI.—*Comparative Number of Suicides by Months and Seasons, United States Registration Area, 1911-1915.*

	Suicides.	Percentage Distribution.
January	3,906	7.6
February	4,028	7.8
March	4,387	8.5
April	4,748	9.2
May	4,794	9.4
June	4,738	9.2
July	4,390	8.5
August	4,182	8.1
September	4,319	8.4
October	4,044	7.9
November	4,036	7.9
December	3,843	7.5
Winter	12,321	23.9
Spring	14,280	27.8
Summer	12,891	25.0
Autumn	11,923	23.3

The frequency of suicide by age, sex and method requires no extended discussion, but the usual tables, brought down to date, are included for convenient reference.

TABLE VII.—*Suicides in the United States Registration Area by Age and Sex, 1911-1915.*

Ages at Death.	Persons. No. of Suicides.	Persons. Rate per 100,000 of Population.	Persons. Percent. Distribution.	Males. No. of Suicides.	Males. Rate per 100,000 of Population.	Males. Percent. Distribution.	Females. No. of Suicides.	Females. Rate per 100,000 of Population.	Females. Percent. Distribution.
Under 5	0	.....	.....	0	.....	.....	0	.....	.....
5–9	2	.....	.....	1	.....	.....	1	.....	.....
10–14	151	.5	.3	78	.5	.2	73	.5	.6
15-19	1,898	6.3	3.7	825	5.5	2.1	1,073	7.2	9.0
20–24	4,525	14.3	8.8	2,898	18.0	7.3	1,627	10.6	13.7
25-34	10,634	19.4	20.7	7,734	26.8	19.6	2,900	11.2	24.3
35–44	10,640	24.3	20.7	8,302	36.0	21.0	2,338	11.3	19.6
45–54	10,356	33.3	20.1	8,516	51.7	21.6	1,840	12.6	15.4
55-64	7,620	40.9	14.8	6,398	66.1	16.2	1,222	13.7	10.3
65-74	3,886	36.6	7.6	3,279	61.8	8.3	607	11.5	5.1
75 & over	1,512	33.8	2.9	1,287	60.7	3.3	225	9.5	1.9
Unknown	191	.....	.4	174	.....	.4	17	.....	.1
All ages	51,415	16.3	100.0	39,492	24.2	100.0	11,923	7.8	100.0

TABLE VIII.—*Suicides in the United States Registration Area by Methods Used and Sex, 1911-1915.*

Method of Suicide.	Persons. No. of Suicides.	Persons. Rate per 100,000 of Population.	Persons. Percent. Distribution.	Males. No. of Suicides.	Males. Rate per 100,000 of Population.	Males. Percent. Distribution.	Females. No. of Suicides.	Females. Rate per 100,000 of Population.	Females. Percent. Distribution.
By firearms	15,479	4.9	30.1	14,120	8.7	35.8	1,359	.9	11.4
By poison	14,020	4.4	27.3	8,894	5.5	22.5	5,126	3.3	43.0
By hanging or strangulation	7,491	2.4	14.6	6,188	3.8	15.7	1,303	.8	10.9
By asphyxia	6,477	2.1	12.6	4,371	2.7	11.1	2,106	1.4	17.7
By cutting or piercing instruments	3,279	1.0	6.4	2,884	1.8	7.3	395	.3	3.3
By drowning	2,869	.9	5.6	1,845	1.1	4.7	1,024	.7	8.6
By jumping from high places	956	.3	1.9	602	.4	1.5	354	.2	3.0
By crushing	433	.2	.8	366	.2	.9	67	.1	.6
By other methods	411	.1	.8	222	.1	.6	189	.1	1.6
Total	51,415	16.3	100.0	39,492	24.2	100.0	11,923	7.8	100.0

On account of the war two additional tables are included, showing, respectively, the suicide record of the regular Army of the United States from 1902 to 1916, and the suicides in the United States Navy for the five years ending with 1915. A distinction is made of officers and privates. The returns for the Army are derived from the reports of the Adjutant General, and those for the Navy from the annual reports of the Surgeon General.

TABLE IX.—*Suicides in the United States Army,* 1902-1916.*

Years ending June 30th.	U. S. Army — No. of Suicides.	U. S. Army — Rate per† 1000 Mean Strength.	Officers — No. of Suicides.	Officers — Rate per† 1000 Mean Strength.	Enlisted Men — No. of Suicides.	Enlisted Men — Rate per† 1000 Mean Strength.
1902	52	0.59	5	1.42	47	0.55
1903	44	0.60	3	0.79	41	0.58
1904	38	0.55	3	0.79	35	0.54
1905	34	0.50	4	1.04	30	0.47
1906	38	0.55	4	1.03	34	0.52
1907	42	0.64	3	0.78	39	0.63
1908	37	0.54	1	0.26	36	0.56
1909	46	0.55	2	0.47	44	0.55
1910	36	0.43	2	0.46	34	0.42
1911	47	0.58	0	.....	47	0.61
1912	61	0.70	3	0.65	58	0.70
1913	42	0.46	0	.....	42	0.48
1914	52	0.55	2	0.42	50	0.56
1915	40	0.39	1	0.21	39	0.40
1916	65	0.62	6	1.22	59	0.59
1902–1906	206	0.56	19	1.01	187	0.54
1907–1911	208	0.54	8	0.39	200	0.55
1912–1916	260	0.54	12	0.51	248	0.54

TABLE X.—*Suicides in the United States Navy, 1911-1915.*

Rates Per 1,000 Average Complement.

Years ending June 30th.	Navy and Marine. Suicides.	Navy and Marine. Rate.	Officers. Suicides.	Officers. Rate.	Artificers. Suicides.	Artificers. Rate.
1911	22	.36	5	1.08	4	.24
1912	16	.26	0	0	6	.34
1913	14	.21	1	.22	3	.16
1914	21	.31	1	.22	5	.25
1915	21	.31	1	.21	8	.41
1911–1915	94	.29	8	.35	26	.28

	Miscellaneous Force. Suicides.	Miscellaneous Force. Rate.	Seaman's Branch. Suicides.	Seaman's Branch. Rate.
1911	9	.54	4	.17
1912	5	.29	5	.22
1913	6	.33	4	.16
1914	5	.26	10	.42
1915	9	.48	3	.12
1911–1915	34	.38	26	.22

The returns for the Army indicate a remarkable uniformity for the last fifteen years as regards enlisted men, but a marked decrease in the rate for officers. For the Navy the data are not available for the earlier years, nor as yet for the year 1916; but it is suggestive that against an average of 0.51 per 1000 of mean strength for officers in the Army, the rate for officers in the Navy and Marine Corps should have been only 0.35 per 1000 average complement. The rates for artificers, miscellaneous force and the seaman's branch of the Navy were all below the average for enlisted men of the Army. Against a general average of 0.54 per 1000 mean strength for the Army for the five years ending with 1916,

* Data from the Adjutant General's Reports.
† Rates based upon the Average Monthly Strength.

the rate for the Navy, for the five years ending with 1915, was only 0.29 per 1000 average complement.

The broadening interest of life insurance companies in the suicide problem is reflected in the recently published statistics of the Metropolitan Life Insurance Company, limited, however, to that company's industrial experience. Among four million insured white males the number of suicides in 1916 was 620, or 15.3 per 100,000, against 19.6 in 1915. Among nearly five million insured white females there were 308 suicides in 1916, or 6.3 per 100,000, against 7.5 in 1915. Among males the most frequent method of suicide was by firearms, or 31 per cent. Among females the most common method was poisoning, accounting for about 33 per cent. The suicide rate among negro males was 8.2 per 100,000 insured during 1916, and among negro females the rate was 3.4. The statistics of the Metropolitan, which accurately reflect the degree of suicidal frequency among American wage-earners, are, therefore, in general conformity to the facts disclosed by the preceding analysis of the suicide record of 100 American cities.—*The Spectator,* November 1, 1917.

THE SUICIDE RECORD OF 1917.

The annual loss of life through self-murder is approaching twenty thousand for the continental United States. In ten years, therefore, making allowance for an increase in population and a further increase in the actual number of suicides, approximately a quarter of a million adult lives will be sacrificed, for reasons often trivial, or causes largely within the sphere of social control. No section of preventive medicine offers a more promising field than social pathology, chiefly in the direction of a substantial reduction in the deaths from suicide and murder. Looking backward throughout the period of a hundred and forty-two years since America became a nation, it may be conservatively estimated that not far from a million people have ended their own existence, regardless of the fact that no country in the world, during a corresponding period of time, has experienced a higher degree of material and social well-being and providing more abundant opportunities for the pursuit of happiness, individually or collectively considered.

Regardless of the fact that self-murder has become almost a commonplace, the subject is practically receiving no consideration from the Church or the State. As a moral and religious question, probably none transcends it in importance, for every suicide implies a contemptuous disregard of every traditional moral and religious obligation. As a problem in social economics, the waste of human lives is more appalling than the corresponding and largely inevitable sacrifice of life in every-day industry. Against the estimated number of nearly seventeen thousand suicides in the continental United States during 1917, there were certainly not more than twenty-five thousand, and possibly not more than twenty-two thousand fatal industrial accidents, of which a very considerable proportion represents an inherent trade risk, against which any and all safety precautions are likely to prove ineffective.

In view of the wide variation in the relative mortality from suicide for the white and colored, the following table is included, showing the rates for twenty Southern cities by race. For the group of cities combined, the white rate was 22.6 per 100,000 of population against a colored rate of only 5.6:

TABLE IV.—*Suicides in Twenty Southern Cities. By Color, 1912-1916.*

Cities.	White.		Colored.	
	No. of Suicides.	Rate per 100,000 of Population.	No. of Suicides.	Rate per 100,000 of Population.
Atlanta, Ga.	118	19.4	16	5.5
Baltimore, Md.	512	20.8	24	5.5
Birmingham, Ala.	87	17.0	14	4.4
Charleston, S. C.	21	14.5	1	.6
Charlotte, N. C.	16	12.6	2	3.2
Galveston, Texas	64	40.7	8	18.4
Jacksonville, Fla.	66	37.7	4	2.3
Lexington, Ky.	46	33.8	5	8.6

Cities.	White. No. of Suicides.	White. Rate per 100,000 of Population.	Colored. No. of Suicides.	Colored. Rate per 100,000 of Population.
Louisville, Ky.	222	23.0	8	3.8
Memphis, Tenn.	126	28.4	24	8.8
Mobile, Ala.	31	20.0	4	3.3
Montgomery, Ala.	22	20.9	5	4.9
Nashville, Tenn.	86	22.0	15	8.2
New Orleans, La.	280	21.0	34	7.2
Norfolk, Va.	77	28.5	4	2.5
Richmond, Va.	82	17.6	8	3.0
San Antonio, Texas	135	26.3	1	1.6
Savannah, Ga.	40	23.7	2	1.2
Washington, D. C.	353	27.8	49	9.9
Wilmington, Del.	62	14.9	3	6.7
Total	2,446	22.6	231	5.6

The foregoing statistics do not seem to require an extended analysis at the present time. They are sufficient evidence of the truly immense social importance of an evil which, as previously stated, is practically ignored as non-existent in the established order of the day.

In conclusion, among the more interesting special aspects of the subject, a brief reference may be made to the apparent correlation of insomnia and suicides. The following is an abbreviated statement quoted from the *London Lancet* of December 12, 1917:

"The influence that slight refractive errors have in causing many of the functional nerve troubles so prevalent in these days is discussed by Pronger. Among these insomnia has naturally had a prominent place. Slight errors of refraction, although not causing any visual defect, are of great importance, in that they give rise to sundry neuroses. Especially, says Pronger, should these slight degrees never be ignored in any case of insomnia, because some error is nearly always present in those cases not associated with organic disease, such as tumor, kidney troubles and the like, or with persistent pain from any cause. Insomnia is not usually the only symptom, but is generally associated with attacks of great depression, and often with giddiness or headaches. A few illustrations are given by Pronger of what can be done for the relief of insomnia, and also of some of the difficulties that have to be surmounted, particularly the skepticism of the patient as to the possibility of glasses being of use for such a purpose, especially if the sight is good or an oculist has already been seen."

Another interesting aspect of the suicide problem is presented in the case following, originally reported in the *German Medical Weekly* of Berlin:

"Janssen relates that a woman with mild pulmonary tuberculosis, who had frequent periods of fever up to 38.5 C., and exacerbation of symptoms temporarily incapacitating her, tried to commit suicide by injecting a fluid which had been given her for treatment. This proved to be tuberculin, and she injected 2 c.c. at the one time. She became very sick, with high fever and very rapid heart action. The foci in the lungs had not changed enough to explain this aggravation of the condition, and the

attending physician was puzzled indeed until the young woman confessed the injection she had made. The heart was kept up with stimulants and the storm gradually subsided, leaving the patient remarkably improved over her previous condition, with her earning capacity restored."

Finally, there is included, as a matter of record, the case of a soldier who committed suicide after having been rejected for further military service. This item appeared in the *New York Sun*, August 22, 1918:

"Edward A. Allan, a chief clerk in the postoffice, had served six months on the border with the Seventy-first Infantry, but when his regiment sailed for France he was left behind. He had failed to convince army surgeons that an operation for appendicitis had not incapacitated him and since they had failed on their part to convince him to the contrary Allan took his rejection to heart. He tried the regular army, the navy and the Marine Corps, and each turned him down. Yesterday he hanged himself in his home at 503 West 138th street, his honorable discharge in one hand, a Bible in the other.

"Allan was dead when his wife went into his bedroom. The Bible had fallen to the floor, but his grip on the discharge papers had outlasted life."

—*The Spectator,* October 17, 1918.

SUICIDE RECORD OF 1919.

In contrast to an increase in the rate of homicidal frequency the suicide rate during 1919 slightly decreased, maintaining, however, about the same position as during the preceding year, but falling still considerably below the high rates reached during 1908-09 and 1914-15. It is difficult to account for the suicidal phenomenon on the basis of a single or predominating causative factor, and probably no human action is the resultant of more complex conditioning circumstances, some of which certainly defy statistical analysis. It may safely be asserted, however, that economic prosperity bears largely upon the rate and that during long periods of economic depression a higher rate of frequency is usually met with than during years of prosperity and high wages. Without an extended analysis of the data available for the purpose no definite conclusion can for the time being be arrived at as regards the effect of the war upon either homicide or suicide. In the table following the suicide returns of one hundred American cities have been brought together for the twenty-year period 1900-19, indicating with the nearest approach to accuracy the fluctuations in the rate of suicidal frequency before and during the war period.

Suicides in One Hundred American Cities.

Year.	Population.	Suicides.	Rate per 100,000 of Population.
1900	16,846,895	2,593	15.4
1901	17,319,899	2,707	15.6
1902	17,806,387	2,992	16.8
1903	18,242,586	3,342	18.3
1904	18,764,961	3,569	19.0
1905	19,286,159	3,561	18.5
1906	19,868,452	3,401	17.1
1907	20,500,698	3,885	19.0
1908	21,088,594	4,569	21.7
1909	21,653,913	4,444	20.5
1910	22,302,631	4,380	19.6
1911	22,805,446	4,673	20.5
1912	23,307,772	4,551	19.5
1913	23,810,088	4,698	19.7
1914	24,312,395	5,102	21.0
1915	24,742,737	5,204	21.0
1916	25,335,333	4,590	18.1
1917	25,855,935	4,354	16.9
1918	26,348,537	3,857	14.6
1919	26,843,039	3,818	14.2
1904-08	99,508,864	18,985	19.1
1909-13	113,879,850	22,746	20.0
1914-18	126,594,937	23,107	18.2
1919	26,843,039	3,818	14.2

Suicides in One Hundred American Cities, 1920-1925.

Rate per 100,000 of Population.

	1920	1921	1922	1923	1924	1925
Atlanta, Ga.	7.4	14.9	11.0	11.9	17.9	16.8
Atlantic City, N. J.	19.6	11.7	30.8	40.1	24.6	24.4
Auburn, N. Y.	16.5	5.5	8.2	10.9	5.4	11.2
Augusta, Ga.	7.6	9.4	13.0	16.6	11.0	9.1
Baltimore, Md.	11.9	13.7	15.9	11.9	12.2	12.1
Bayonne, N. J.	6.4	5.0	1.2	3.6	4.6	2.3
Boston, Mass.	13.3	11.9	14.1	16.5	14.0	14.2
Bridgeport, Conn.	12.5	11.1	16.7	10.8	10.0	13.9
Brockton, Mass.	6.0	16.2	10.2	14.4	7.1	9.8
Brooklyn, N. Y.	9.5	10.0	10.6	9.9	10.8	10.6
Buffalo, N. Y.	6.8	10.4	11.7	10.8	11.0	9.1
Cambridge, Mass.	7.3	9.1	6.3	9.0	7.1	7.5
Camden, N. J.	10.2	5.0	8.2	11.3	12.7	9.3
Charleston, S. C.	10.2	5.8	2.8	2.8	2.8	8.2
Chelsea, Mass.	16.0	8.9	15.2	2.1	10.4	4.2
Chicago, Ill.	13.4	16.5	14.0	13.4	15.1	14.4
Cincinnati, Ohio	11.9	14.6	14.6	20.2	16.2	18.1
Cleveland, Ohio	11.3	14.3	11.9	11.5	13.0	14.7
Columbus, Ohio	5.4	11.3	9.0	7.3	12.3	10.0
Concord, N. H.	9.0	26.9	13.4	17.9	26.7	26.7
Dayton, Ohio	13.0	10.8	15.4	7.2	9.5	14.5
Denver, Colo.	20.9	21.3	23.9	21.3	21.7	28.8
Detroit, Mich.	8.9	12.8	13.2	13.4	13.5	12.6
Duluth, Minn.	16.0	18.6	24.0	12.2	10.1	22.7
Elizabeth, N. J.	6.2	7.0	12.8	9.6	4.7	4.6
Elmira, N. Y.	4.4	10.7	8.4	8.3	4.1	8.3
Erie, Penna.	9.7	8.5	11.9	7.0	10.2	10.7
Fall River, Mass.	8.3	5.0	7.5	5.0	7.4	8.5
Fitchburg, Mass.	14.6	2.4	9.6	9.5	16.5	11.5
Gloucester, Mass.	17.4	17.4	4.4	13.1	8.7	29.9
Grand Rapids, Mich.	15.1	12.7	7.7	14.4	11.5	11.1
Hartford, Conn.	11.6	21.7	9.4	11.2	9.6	7.5
Haverhill, Mass.	7.4	18.1	23.1	15.7	27.4	18.5
Hoboken, N. J.	10.3	19.6	19.1	15.9	8.6	11.5
Holyoke, Mass.	5.0	3.3	9.9	8.2	6.5	1.7
Indianapolis, Ind.	15.4	13.8	19.4	22.5	16.2	17.6
Jersey City, N. J.	6.3	10.9	10.5	10.7	9.9	8.2
Johnstown, Penna.	3.0	7.3	18.8	8.6	1.4	7.0
Lawrence, Mass.	4.2	17.8	11.4	3.1	9.2	10.7
Lincoln, Nebr.	9.0	14.1	15.6	8.5	5.0	9.8
Los Angeles, Calif.	19.7	28.2	30.7	32.8	24.0	21.3
Louisville, Ky.	18.7	27.1	19.5	22.1	14.3	12.6
Lowell, Mass.	8.8	11.4	8.7	7.0	6.9	5.4
Lynn, Mass.	4.0	20.9	11.8	7.8	12.5	11.6
Malden, Mass.	6.1	16.1	8.0	9.8	5.9	7.7
Manchester, N. H.	5.1	10.0	9.9	14.7	14.6	1.2
Manhattan and Bronx	13.5	17.9	15.7	16.3	15.6	20.4
Massillon, Ohio	.....	.....	10.9	16.1	31.6	5.2
McKeesport, Penna.	6.4	14.8	6.3	8.3	12.3	16.3
Milwaukee, Wisc.	11.5	17.9	13.2	14.9	14.6	15.9
Minneapolis, Minn.	15.1	17.8	15.7	15.2	17.7	24.9
Mobile, Ala.	6.5	6.4	11.1	11.0	12.3	9.1
Nashville, Tenn.	7.6	11.7	16.6	18.8	17.8	15.4
Newark, N. J.	11.2	16.0	12.5	12.8	11.2	11.3
New Bedford, Mass.	10.6	10.4	5.5	9.2	8.3	8.9
Newburgh, N. Y.	6.6	9.8	3.2	3.2	9.5	16.4
New Haven, Conn.	8.5	13.2	8.2	14.5	8.0	8.9
New Orleans, La.	10.3	17.0	11.8	11.4	13.9	15.7
Newport, R. I.	3.3	.....	6.4	.....	3.2	10.8

	1920	1921	1922	1923	1924	1925
Newton, Mass.	12.9	12.8	14.7	8.3	6.1	17.0
Oakland, Calif.	18.7	25.6	15.0	23.3	30.0	26.8
Omaha, Nebr.	41.9	20.3	23.5	25.0	26.9	26.9
Orange, N. J.	9.0	8.9	14.6	14.4	11.4	2.8
Passaic, N. J.	10.9	18.4	10.6	14.9	10.3	18.8
Paterson, N. J.	14.7	13.8	17.3	12.9	17.1	12.0
Petersburg, Va.	15.9	12.5	20.8	5.8	.....	8.4
Philadelphia, Penna.	10.4	13.8	15.0	14.4	15.2	12.5
Pittsburgh, Penna.	8.8	13.8	14.1	13.1	11.2	14.9
Pittsfield, Mass.	9.5	11.6	6.8	6.6	8.7	12.8
Portland, Me.	2.9	9.9	16.7	8.2	12.1	19.9
Portland, Ore.	18.4	19.3	27.5	16.7	23.6	23.2
Providence, R. I.	12.2	10.4	10.4	10.7	12.7	10.8
Pueblo, Colo.	11.6	9.2	13.8	11.5	13.7	6.9
Quincy, Ill.	5.6	13.3	16.0	16.0	15.8	5.2
Reading, Penna.	23.1	20.2	10.0	15.3	25.9	14.2
Richmond, Va.	7.5	10.8	7.3	12.7	17.4	13.4
Rochester, N. Y.	10.4	12.1	10.3	9.4	12.5	13.6
Sacramento, Calif.	22.6	22.2	39.2	32.9	42.2	54.0
St. Louis, Mo.	16.5	20.2	20.0	21.6	20.7	17.5
St. Paul, Minn.	11.0	13.5	15.4	14.5	13.9	11.6
Salem, Mass.	11.8	7.1	18.8	9.4	7.1	9.3
Salt Lake City, Utah	10.1	15.6	20.2	16.6	8.6	18.3
San Diego, Calif.	26.2	48.8	47.9	50.5	42.5	39.6
San Franscisco, Calif.	25.6	37.3	30.4	33.6	37.8	31.6
Savannah, Ga.	8.3	7.0	11.4	8.9	9.9	6.4
Scranton, Penna.	0.7	10.1	6.4	5.7	20.5	4.9
Seattle, Wash.	23.1	24.1	28.8	20.6	26.1	23.3
Somerville, Mass.	6.4	4.2	5.1	8.1	7.0	5.0
Springfield, Ill.	10.1	16.6	18.0	8.1	20.7	14.1
Springfield, Mass.	7.6	14.0	11.4	9.0	9.4	13.4
Spokane, Wash.	22.0	32.6	22.0	19.7	22.3	24.8
Syracuse, N. Y.	13.2	11.8	15.5	11.4	16.0	20.9
Tacoma, Wash.	16.4	24.2	19.9	27.5	17.5	28.7
Toledo, Ohio	13.4	19.3	13.8	13.7	13.2	11.1
Trenton, N. J.	13.3	16.3	24.0	27.5	20.0	19.7
Washington, D. C.	9.8	19.2	15.3	13.2	17.3	13.8
Wheeling, W. Va.	8.9	12.5	7.1	14.2	17.8	16.0
Williamsport, Penna.	5.5	16.3	5.4	14.4	9.5	4.7
Wilmington, Del.	8.1	7.9	7.8	9.3	8.3	10.7
Worcester, Mass.	7.2	14.6	8.5	13.5	7.7	11.0
Total	12.4	15.6	15.0	14.8	15.2	15.3

It will be observed that the rate continued to increase from 15.4 per 100,000 of population in 1900 to a maximum of 21.7 in 1908, a rate which has not been reached subsequent to that date, although rates approaching this figure prevailed in 1909, 1911, and the first two years of the European war, 1914 and 1915. Since the commencement of our own entry into the war the rate has diminished, the lowest figures on record during the twenty-year period, or 14.2 per 100,000 of population, being for 1919. In other words, the rate during the year under review was 65.4 per cent of the maximum rate, reached in 1908.

Aggregate figures fail to disclose the true significance of the suicide problem and it has therefore seemed advisable to bring together for the present purpose the suicide statistics of 100 cities by single years since 1900. As far as I know, no similar presentation has been made for any country in the world. Where so much praise is bestowed upon foreign

vital statistics it may not be out of place to say that our own statistics, which now include about eighty per cent of the total population of this country, not only compare very favorably with the corresponding returns of any other country, but that in many cases they are decidedly superior, both in quality and in the matter of tabular presentation and analysis.

Reason for Fluctuation.

It goes without saying that all suicide mortality statistics fail to present the true facts in their entirety on account of the inherent impossibility of an absolutely accurate diagnosis in cases which admit of a differential diagnosis as to being homicidal, accidental, or suicidal, as the case may be. The evidence is increasing that more subtle means are being resorted to, both in homicide and suicide, to baffle the police and pathological research. These observations are called for in explanation of some of the fluctuations in the rates, probably due to the inherent difficulty of an absolutely accurate diagnosis. In the furtherance of local investigations emphasizing the wide range in the suicidal rate by geographical divisions, a table is included presenting the facts by quinquennial periods and indicative, as usual in the past, of the excessive incidence of suicidal deaths on the Pacific Coast. It, of course, should be thoroughly understood that the tabulation has reference only to cases officially reported as deaths from suicide and that it does not bear upon the problem of attempts at suicide, which are a matter of record only in States in which such attempts are a criminal offense. The table referred to, however, is of unusual interest in that it emphasizes the fact that a decrease in the suicide rate during 1919 has taken place in every section of the country, and that the lowest figures prevail, as heretofore, in the Southern States, and the highest in the cities of the Pacific Coast, or a range in frequency from an average of 11.6 per 100,000 of population in the former to 24.9 in the latter.

Geographical Distribution of Suicides, 1904-1919.

		Rate per 100,000 of Population.			
	No. of Cities.	1904-1908.	1909-1913.	1914-1918.	1919.
New England cities	28	13.6	14.7	14.8	12.4
Middle Atlantic cities	27	17.3	17.4	15.6	12.2
Southern cities	14	16.2	17.4	15.3	11.6
Central cities	19	21.4	22.3	20.3	15.4
Rocky Mountain cities	3	24.7	31.1	20.9	16.6
Pacific Coast cities	9	34.4	35.0	32.2	24.9
Average	....	19.1	20.0	18.2	14.2

Additional to the foregoing, I include a table showing the distribution of suicides by methods and according to sex, both on the basis of the percentage of all causes and methods, and the corresponding rates per 100,000 of population. This table is of particular interest in that it emphasizes the relatively high degree of suicidal frequency due to poison among women, approaching closely to the corresponding rate for men, or, respectively, 2.5 per 100,000 of population for females and 3.5 for males. For men the highest rate of frequency is to be observed for firearms, forming 38.7 per cent of the suicides by all methods, while the

corresponding percentage is 13.5 for women. There can be no question of doubt that a more effective restriction on the possession and sale of firearms would result in a material reduction in suicidal frequency. The same conclusion, of course, applies with equal, if not greater, force to the reckless sale and possession of poisons.

United States Registration Area—1914-1918.
Suicides by Method and Sex.

	Male Suicides.	Per Cent.	Rate, 100,000.	Female Suicides.	Per Cent.	Rate, 100,000.	Total Suicides.	Per Cent.	Rate, 100,000.
Poison	6,424	16.4	3.5	4,391	34.8	2.5	10,815	20.8	3.0
Asphyxia	4,663	11.9	2.5	2,545	20.1	1.5	7,208	13.9	2.0
Hanging	6,506	16.6	3.5	1,517	12.0	.9	8,023	14.5	2.2
Drowning	1,953	5.0	1.1	1,211	9.6	.7	3,164	6.1	.9
Firearms	15,200	38.7	8.2	1,699	13.5	1.0	16,899	32.6	4.7
Cutting and piercing instr.	3,076	7.8	1.7	425	3.4	.2	3,501	6.7	1.0
Jumping from high places	806	2.0	.4	511	4.0	.3	1,317	2.5	.4
Crushing	372	.9	.2	91	.7	.1	463	.9	.1
Others	272	.7	.1	236	1.9	.1	508	1.0	.1
Total	39,272	100.0	21.2	12,626	100.0	7.2	51,898	100.0	14.4

United States Registration Area—1919-1924.
Suicides by Method and Sex.

	Male Suicides.	Per Cent.	Rate, 100,000.	Female Suicides.	Per Cent.	Rate, 100,000.	Total Suicides.	Per Cent.	Rate, 100,000.
Poison	5,572	11.5	2.0	4,755	29.8	1.8	10,327	16.1	1.9
Asphyxia	5,270	10.9	1.9	3,155	19.8	1.2	8,425	13.1	1.5
Hanging	9.080	18.8	3.2	2,272	14.2	0.9	11,352	17.7	2.1
Drowning	2,421	5.0	0.9	1,585	9.9	0.6	4,006	6.2	0.7
Firearms	20.209	41.9	7.2	2,476	15.5	0.9	22,685	35.3	4.1
Cutting and piercing instr.	3,755	7.8	1.3	575	3.6	0.2	4,330	6.7	0.8
Jumping from high places	1,044	2.2	0.4	701	4.4	0.3	1,745	2.7	0.3
Crushing	531	1.1	0.2	146	0.9	0.1	677	1.1	0.1
Others	394	0.8	0.1	287	1.8	0.1	681	1.1	0.1
All suicides	48,276	100.0	17.1	15,952	100.0	6.0	64,228	100.0	11.7

A careful reading of the newspaper evidence, which constitutes for practical purposes about the only information on the subject useful for analytical purposes, indicates a strong trend towards more subtle means of self-murder, which may in part be explained by the increase in accidents due to poisons and the use of firearms on the one hand, and of homicide on the other. A most sinister aspect of the modern suicide problem is the increasing extent to which murder is committed at the same time that the murderer ends his own life by self-murder. It would be interesting to know the extent to which such cases are classified as homicides, and whether a serious error does not possibly occur in properly assigning such cases to the class of criminals to which they belong.

Suicides are unquestionably becoming more brutal in their utter disregard of all human instincts of love and affection, emphasized in a recent case reported from West Nyack, N. Y., where a man shot his wife in the back while kissing her goodbye; and another reported from Garfield, N. J., where a father killed his son, only eighteen months old, and then ended his own life. According to *The Sun,* of New York, of June 3, 1919, a man committed suicide a day after his marriage; and the curious case of a woman who shot herself while a guest on board the destroyer "Haraden." One of the most lamentable suicides of the year was that of Admiral Brittain, chief of staff to the Atlantic Fleet, who ended his life in Cuba. A curious case was the death by suicide of a woman in the Martha Washington Hotel, who made use of a rifle, and still more curious, the death of a blind man who ended his life by using the sharp edged sole of a new pair of shoes to cut his throat. Foremost, however, from the public point of view, was the suicide of the Cromwell twins, who were drowned in the estuary of the Gironde, near the Bay of Biscay, early in the evening of January 19, 1919, by jumping from the French liner "La Lorraine."

Suicides in 100 American Cities, 1900-1911—(Rate per 100,000 of Population).

	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Atlanta, Ga.	4.4	5.3	6.0	5.8	1.8	20.1	15.1	12.2	15.6	19.1	14.2	13.2
Atlantic City, N. J.	.....	.....	.....	5.9	16.8	16.0	15.3	24.4	23.4	24.8	32.2	34.1
Auburn, N. Y.	16.5	3.3	13.0	16.1	19.2	22.3	21.8	21.4	33.0	17.6	25.9	34.4
Augusta, Ga.	.....	.....	2.5	.....	2.5	2.5	5.0	4.9	4.9	4.9	7.3	4.7
Baltimore, Md.	11.8	10.5	11.2	9.5	14.4	15.3	15.4	15.2	18.0	18.4	14.5	17.5
Bayonne, N. J.	9.2	11.6	5.5	18.2	12.4	23.7	8.9	6.3	10.0	17.0	3.6	20.6
Boston, Mass.	13.7	14.4	13.6	13.8	12.6	14.4	10.9	20.4	20.5	18.7	15.4	18.9
Bridgeport, Conn.	19.6	8.1	5.2	14.9	11.9	11.5	15.5	22.5	15.6	25.1	32.3	22.6
Brockton, Mass.	5.0	19.2	4.6	17.9	10.8	4.2	12.1	19.4	9.4	16.3	12.2	12.0
Brooklyn, N. Y.	17.0	15.7	19.5	18.3	16.9	13.5	12.6	12.7	17.8	16.9	15.0	15.0
Buffalo, N. Y.	9.1	14.3	9.9	12.8	10.8	19.6	16.5	11.8	12.3	13.7	13.2	11.6
Cambridge, Mass.	6.5	7.5	5.3	11.6	4.2	10.2	4.0	11.9	14.7	8.7	8.6	5.7
Camden, N. J.	1.3	5.2	5.1	6.2	6.1	4.8	15.2	12.5	10.0	10.8	15.8	20.6
Charleston, S. C.	5.4	1.8	8.9	5.3	1.8	3.5	6.9	5.2	6.9	.....	15.3	5.0
Chelsea, Mass.	17.6	5.8	11.3	8.3	16.4	8.0	2.8	11.3	2.9	12.0	15.2	14.7
Chicago, Ill.	21.3	22.6	24.3	26.0	21.5	22.2	19.8	19.9	23.6	21.2	21.0	21.4
Cincinnati, O.	12.9	24.3	21.1	24.1	25.2	25.8	21.3	18.9	23.8	17.7	17.3	21.0
Cleveland, O.	15.1	13.6	15.0	16.7	16.4	21.0	14.4	20.4	17.7	22.4	18.4	20.2
Columbus, O.	13.5	13.8	15.5	15.0	10.3	18.0	9.1	30.8	30.5	23.7	24.2	24.1
Concord, N. H.	10.2	15.1	10.0	24.8	24.5	19.5	14.5	9.6	14.2	28.2	46.4	4.6
Dayton, O.	2.3	8.1	6.8	13.4	21.9	28.9	16.8	24.8	18.2	27.9	32.2	27.4
Denver, Col.	11.2	21.2	23.5	24.3	29.1	28.5	23.6	23.3	28.9	36.6	31.9	36.3
Detroit, Mich.	11.6	8.5	10.3	11.0	14.7	10.9	11.5	14.2	16.6	15.4	26.2	19.3
Duluth, Minn.	5.7	12.6	19.0	16.6	12.8	16.9	16.2	17.0	25.9	15.7	15.2	19.8
Elizabeth, N. J.	13.4	11.2	14.4	7.0	15.3	8.3	9.5	13.7	14.7	16.9	23.0	21.0
Elmira, N. Y.	5.6	5.6	11.3	2.9	11.5	34.6	17.1	8.4	8.3	35.4	21.5	39.5
Erie, Pa.	7.6	14.8	1.8	3.5	12.0	5.0	9.8	14.4	15.7	24.6	15.0	11.5
Fall River, Mass.	5.7	4.8	8.6	10.4	2.8	2.8	4.6	6.3	14.9	8.5	15.9	18.4
Fitchburg, Mass.	3.2	6.3	.....	9.3	12.2	24.2	14.7	28.6	19.5	19.0	15.8	15.7
Gloucester, Mass.	3.8	15.3	3.8	15.4	23.0	7.7	.....	23.5	15.9	3.9	.....	12.4
Grand Rapids, Mich.	14.8	16.7	12.0	11.7	20.8	18.2	12.8	13.4	21.4	16.3	11.5	21.7
Hartford, Conn.	5.0	9.8	8.4	12.9	16.0	13.4	16.4	21.5	25.2	24.7	15.1	32.0
Haverhill, Mass.	13.4	21.4	24.0	24.0	15.9	5.3	28.1	29.7	12.0	21.0	11.3	15.5
Hoboken, N. J.	28.6	38.0	37.2	27.0	40.5	30.5	33.1	26.7	38.0	51.9	26.9	28.4
Holyoke, Mass.	8.8	12.9	8.4	10.4	14.3	10.0	9.7	7.5	11.0	17.8	6.9	6.9
Indianapolis, Ind.	10.0	6.3	9.0	12.3	18.0	20.9	18.0	27.0	25.0	32.3	24.0	29.0
Jersey City, N. J.	17.9	15.1	14.3	19.8	19.3	20.1	10.8	19.0	21.2	23.3	22.8	13.3
Johnstown, Pa.	.....	10.6	2.5	4.8	9.1	6.6	16.8	10.1	3.9	7.5	7.0	6.8
Lawrence, Mass.	11.2	18.7	4.6	7.5	14.6	4.3	8.2	22.3	8.8	13.3	9.3	12.7
Lincoln, Neb.	10.0	19.7	2.4	4.8	14.4	21.4	9.4	18.7	23.1	6.9	20.4	17.7
Los Angeles, Cal.	16.3	16.1	31.0	36.3	26.4	12.6	35.3	31.0	33.8	27.3	30.4	37.1
Louisville, Ky.	7.3	6.8	13.9	13.7	23.0	15.4	26.3	23.8	21.3	20.7	16.1	16.9
Lowell, Mass.	9.5	9.5	8.4	14.7	11.6	9.4	8.2	9.0	11.7	18.2	16.0	20.6
Lynn, Mass.	5.8	7.1	5.6	4.1	8.0	9.1	10.1	13.4	13.0	9.2	7.8	8.8
Malden, Mass.	8.9	8.7	5.6	5.5	2.7	18.4	17.8	4.9	11.9	4.6	11.2	11.1

	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Manchester, N. H.	5.3	8.6	6.7	13.1	9.6	7.9	7.7	12.1	14.8	11.6	4.3	11.2
Manhattan and Bronx, N. Y.	22.4	20.8	19.6	22.0	23.6	18.5	17.6	17.6	24.3	20.7	18.2	18.2
Massillon, O.	25.1	8.2	8.1	24.0	15.7	7.7	7.6	7.5	22.2	21.9	7.2	14.0
McKeesport, Pa.	2.9	17.1	16.7	13.6	10.6	26.0	25.4	34.9	19.5	31.1	30.3	23.2
Milwaukee, Wis.	21.4	20.1	21.4	23.4	23.4	23.3	21.5	26.7	23.5	19.2	23.5	19.6
Minneapolis, Minn.	9.4	7.9	15.5	11.8	17.6	19.8	12.9	15.4	18.8	21.7	17.6	20.4
Mobile, Ala.	5.2	10.3	12.8	10.1	20.1	12.5	19.8	19.7	11.8	19.5	5.8	13.4
Nashville, Tenn.	12.4	2.4	8.5	2.4	3.5	19.7	9.2	14.8	11.0	12.8	18.1	12.6
Newark, N. J.	19.1	28.9	20.4	25.9	23.1	27.1	27.6	29.6	23.5	19.3	21.3	20.3
New Bedford, Mass.	.....	7.7	4.5	7.2	5.6	5.4	6.3	4.8	12.5	6.5	8.3	19.2
Newburgh, N. Y.	.....	7.9	3.9	7.7	.....	26.4	7.5	18.5	7.3	25.4	21.5	17.8
New Haven, Conn.	18.5	14.4	18.5	15.5	23.6	20.6	13.7	19.8	22.5	25.8	12.0	16.9
New Orleans, La.	14.3	12.0	15.8	12.5	13.6	17.2	20.1	16.6	27.0	15.8	21.8	13.7
Newport, R. I.	17.8	4.4	25.6	16.7	8.2	24.0	15.7	11.6	7.6	7.5	.....	3.6
Newton, Mass.	3.0	2.9	.....	2.8	.....	.....	2.7	2.6	5.2	5.1	7.5	17.3
Oakland, Cal.	8.9	26.1	14.1	32.3	25.9	23.3	27.1	40.9	47.1	37.1	32.6	35.1
Omaha, Neb.	15.6	13.3	15.9	11.9	16.1	20.2	20.7	24.6	28.3	37.6	25.0	30.6
Orange, N. J.	12.4	20.4	4.0	39.5	27.2	11.5	11.2	10.9	10.6	20.7	10.1	13.3
Passaic, N. J.	21.6	13.4	3.1	8.9	16.7	7.9	4.9	22.4	10.4	7.8	9.0	14.2
Paterson, N. J.	9.5	4.7	10.2	13.8	8.2	16.1	17.4	19.6	20.8	21.1	21.5	18.2
Petersburg, Va.	9.2	4.5	9.0	.....	22.0	4.4	8.6	21.3	25.4	8.4	20.7	16.1
Philadelphia, Pa.	12.3	11.3	13.9	14.6	15.2	13.8	14.7	15.4	17.6	16.4	19.8	17.4
Pittsburgh, Pa.	12.4	14.8	15.2	16.2	18.2	17.3	17.8	23.4	22.0	19.8	22.8	19.1
Pittsfield, Mass.	4.6	8.9	8.7	12.7	.....	12.0	18.9	7.2	6.8	3.3	6.2	9.0
Portland, Me.	13.9	5.9	9.6	5.7	20.5	16.5	14.5	7.1	21.0	6.9	8.5	11.7
Portland, Ore.	15.3	14.7	16.0	13.8	2.2	21.1	25.4	25.5	26.8	21.0	24.6	35.8
Providence, R. I.	8.5	7.8	10.8	11.1	16.0	14.6	17.6	20.0	25.1	16.4	16.9	15.2
Pueblo, Col.	21.2	26.8	22.2	30.2	34.6	32.6	15.6	27.5	19.3	32.5	13.4	13.5
Quincy, Ill.	13.8	13.8	22.0	8.3	8.2	22.0	8.2	16.4	16.4	13.7	24.6	21.9
Reading, Pa.	8.9	13.6	10.9	10.7	11.7	11.4	16.8	18.7	10.8	18.0	22.8	28.7
Richmond, Va.	7.0	3.5	9.1	6.7	7.7	16.3	11.8	12.3	11.3	7.7	9.4	19.3
Rochester, N. Y.	19.7	6.6	17.1	12.7	11.8	12.0	14.7	22.3	20.0	21.2	16.5	23.9
Sacramento, Cal.	13.7	9.7	9.3	20.6	14.1	54.1	10.4	37.4	52.9	51.0	29.1	38.5
St. Louis, Mo.	22.4	22.8	21.9	27.4	34.8	29.4	34.6	32.7	32.1	29.6	29.0	38.0
St. Paul, Minn.	7.4	14.1	11.3	14.7	17.3	18.8	13.9	13.7	15.8	12.3	14.0	16.1
Salem, Mass.	2.8	2.8	8.2	5.4	16.1	5.3	10.3	10.0	7.3	18.8	4.6	6.9
Salt Lake City, Utah.	7.5	7.0	17.9	18.4	8.7	24.6	9.1	27.2	27.1	22.5	24.8	34.6
San Diego, Cal.	5.6	20.1	22.7	57.7	41.6	52.4	29.2	48.5	34.1	37.4	20.0	55.2
San Francisco, Cal.	49.8	45.0	56.4	54.7	70.2	59.6	37.8	36.6	51.1	53.0	44.4	39.4
Savannah, Ga.	9.2	12.8	4.8	9.6	9.6	11.1	6.3	9.4	20.2	15.4	15.3	10.5
Scranton, Pa.	8.8	3.8	.....	18.1	7.1	10.3	6.7	6.5	14.4	10.2	10.8	9.2
Seattle, Wash.	23.3	13.9	27.4	22.1	28.5	21.2	24.6	24.4	32.8	40.0	32.0	30.6
Somerville, Mass.	1.6	7.9	4.6	7.6	1.5	5.8	1.4	5.5	6.8	7.9	6.4	2.5
Springfield, Ill.	8.8	13.9	34.5	22.8	26.7	16.3	20.1	28.0	35.3	48.1	21.2	34.2
Springfield, Mass.	9.7	6.2	7.5	10.2	7.0	6.8	15.7	15.1	19.3	16.3	23.5	13.9
Spokane, Wash.	27.1	22.9	26.1	32.1	32.1	17.5	16.1	22.2	30.0	16.1	23.9	31.6
Syracuse, N. Y.	2.8	8.2	13.4	23.8	14.7	10.2	7.4	13.5	9.2	14.9	21.9	20.6
Tacoma, Wash.	26.3	26.2	26.2	6.0	18.6	19.1	16.3	15.3	26.9	20.9	23.9	41.1
Toledo, O.	5.3	10.3	15.8	21.7	17.7	14.7	16.3	17.1	21.7	25.5	22.0	24.4
Trenton, N. J.	.....	2.6	5.2	3.8	6.1	9.5	13.8	7.8	21.8	10.6	20.6	11.1
Washington, D. C.	9.7	10.2	13.1	20.0	21.0	19.6	14.1	22.8	20.5	29.1	24.2	25.8
Wheeling, W. Va.	10.3	10.2	17.7	25.2	30.0	12.4	19.7	14.7	24.3	14.5	28.8	25.6
Williamsport, Pa.	7.0	10.3	6.8	.....	3.3	3.3	13.1	16.2	12.9	12.7	12.5	9.3
Wilmington, Del.	9.1	2.6	5.1	8.8	2.5	11.0	9.6	10.7	17.6	10.4	8.0	15.6
Worcester, Mass.	9.3	10.8	12.3	7.2	11.9	19.4	12.8	13.2	13.6	7.0	7.5	13.4
Total	15.4	15.6	16.8	18.3	19.0	18.5	17.1	19.0	21.7	20.5	19.6	20.5

Suicides in 100 American Cities, 1912-1919—(Rate per 100,000 of Population).

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1904-1908.	1909-1913.	1914-1918.	1919.
Atlanta, Ga.	17.1	14.2	16.2	19.1	11.0	10.2	6.3	13.8	13.2	15.5	12.4	13.8
Atlantic City, N. J.	25.3	31.4	29.0	53.5	36.7	30.3	24.1	8.0	19.4	29.6	34.7	8.0
Auburn, N. Y.	17.1	17.1	19.8	5.6	14.1	16.8	33.5	30.6	23.6	22.4	18.0	30.6
Augusta, Ga.	13.8	9.0	19.7	19.2	6.3	10.2	8.0	3.9	4.0	8.0	12.5	3.9
Baltimore, Md.	15.0	19.0	21.6	15.8	14.0	14.7	13.9	13.7	15.7	16.9	15.9	13.7
Bayonne, N. J.	4.9	6.4	16.9	8.9	11.4	11.1	5.4	10.4	12.0	10.3	10.6	10.4
Boston, Mass.	16.3	15.1	19.0	19.7	17.2	18.4	15.6	14.5	15.9	16.9	17.9	14.5
Bridgeport, Conn.	20.9	14.0	22.8	26.9	33.1	13.0	19.3	18.0	15.5	22.7	22.9	18.0
Brockton, Mass.	23.7	13.4	18.1	16.2	12.8	23.6	15.5	13.8	11.3	15.6	17.3	13.8
Brooklyn, N. Y.	13.8	12.9	14.2	16.3	10.7	13.7	10.9	10.3	14.7	14.7	13.1	10.3

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1904-1908.	1909-1913.	1914-1918.	1919.
Buffalo, N. Y.	11.1	10.3	12.9	10.1	8.9	10.4	9.4	10.2	14.2	11.9	10.3	10.2
Cambridge, Mass.	7.6	14.1	3.7	9.3	9.3	4.6	8.3	8.3	9.1	8.9	7.1	8.3
Camden, N. J.	6.0	20.7	16.4	15.1	9.3	13.6	8.0	15.8	9.8	14.8	12.4	15.8
Charleston, S. C.	9.9	11.4	4.8	6.3	3.1	9.2	6.0	4.5	4.9	8.3	5.9	4.5
Chelsea, Mass.	8.6	8.3	29.7	31.5	15.4	12.5	12.2	23.7	8.3	11.7	20.0	23.7
Chicago, Ill.	23.6	22.1	24.3	25.0	22.2	18.8	17.2	15.7	21.4	21.9	21.4	15.7
Cincinnati, O.	17.5	17.6	16.6	19.9	17.6	17.7	18.0	21.9	23.0	18.2	18.0	21.9
Cleveland, O.	16.8	16.6	22.4	19.3	19.6	17.9	10.8	15.4	18.0	18.8	17.9	15.4
Columbus, O.	20.2	18.2	21.6	20.1	16.8	12.3	13.3	12.5	20.1	22.0	16.7	12.5
Concord, N. H.	13.8	27.6	32.1	32.0	22.8	18.2	45.4	13.6	16.4	24.1	30.1	13.6
Dayton, O.	17.7	25.0	24.3	22.9	25.2	14.7	15.0	14.0	22.1	24.1	20.3	14.0
Denver, Col.	24.8	33.6	24.3	28.5	15.9	22.6	21.0	19.0	26.6	32.6	22.4	19.0
Detroit, Mich.	18.7	18.1	15.1	15.9	14.2	17.2	8.9	10.4	13.7	19.4	14.1	10.4
Duluth, Minn.	14.5	23.5	18.4	19.1	11.0	18.3	17.9	16.5	17.9	17.8	16.9	16.5
Elizabeth, N. J.	11.5	13.7	7.3	14.2	16.1	11.2	9.9	9.6	12.3	17.1	11.7	9.6
Elmira, N. Y.	7.7	20.2	9.9	12.1	14.3	14.0	6.9	9.0	15.9	24.7	11.4	9.0
Erie, Pa.	16.6	16.0	16.8	17.5	16.9	12.9	17.0	13.2	11.5	16.7	16.2	13.2
Fall River, Mass.	7.5	7.5	14.2	14.2	11.7	5.8	5.0	6.6	6.4	11.6	10.2	6.6
Fitchburg, Mass.	10.4	5.1	15.3	17.7	12.6	10.0	12.4	22.1	19.9	13.1	13.6	22.1
Gloucester, Mass.	12.4	4.2	16.9	29.6	17.0	21.4	17.2	34.6	14.0	6.6	20.4	34.6
Grand Rapids, Mich.	18.7	18.3	22.0	16.0	14.1	10.0	12.8	11.1	17.3	17.4	14.9	11.1
Hartford, Conn.	20.5	18.0	18.3	18.5	17.1	18.2	22.3	18.6	18.6	22.0	18.9	18.6
Haverhill, Mass.	23.8	10.6	18.7	18.3	18.0	7.8	11.5	17.0	18.3	16.4	14.8	17.0
Hoboken, N. J.	30.0	37.2	37.4	21.6	31.8	24.7	8.7	17.5	33.7	34.8	24.9	17.5
Holyoke, Mass.	20.5	10.2	8.5	1.7	8.4	13.4	11.7	3.3	10.5	12.4	8.8	3.3
Indianapolis, Ind.	25.2	29.5	28.6	16.4	27.3	19.0	14.1	17.0	21.9	28.0	20.9	17.0
Jersey City, N. J.	12.8	11.2	16.1	19.8	12.2	13.2	8.6	8.8	18.1	16.6	13.9	8.8
Johnstown, Pa.	6.6	9.6	6.2	6.0	10.2	11.4	9.7	6.7	9.2	7.5	8.8	6.7
Lawrence, Mass.	10.3	5.7	4.5	7.8	8.8	12.0	11.9	16.1	11.7	10.2	9.0	16.1
Lincoln, Neb.	19.5	10.6	16.5	16.2	17.8	11.6	15.2	3.7	17.4	15.0	15.4	3.7
Los Angeles, Cal.	35.4	30.8	35.6	35.8	30.2	32.7	23.3	24.6	28.5	32.4	31.2	24.6
Louisville, Ky.	20.8	22.9	17.1	24.8	15.2	15.1	21.5	10.7	22.0	19.5	18.7	10.7
Lowell, Mass.	9.3	12.9	9.2	13.7	8.2	9.9	6.3	7.2	10.0	15.4	9.5	7.2
Lynn, Mass.	14.2	9.7	13.9	9.5	11.5	10.4	19.5	6.1	10.8	10.0	13.0	6.1
Malden, Mass.	4.4	15.2	10.8	12.8	16.9	6.3	18.7	12.4	11.2	9.4	13.1	12.4
Manchester, N. H.	12.5	20.6	6.8	10.8	6.7	19.8	13.1	5.2	10.5	12.1	11.5	5.2
Manhattan and Bronx, N. Y.	18.8	19.7	21.0	20.5	19.2	15.8	15.0	14.2	20.3	19.1	18.3	14.2
Massillon, O.	6.8	6.7	6.5	19.1	12.5	12.2	6.0	11.7	12.2	11.2	11.2	11.7
McKeesport, Pa.	13.8	27.4	9.1	22.5	15.6	13.3	8.8	26.3	23.4	25.1	13.9	26.3
Milwaukee, Wis.	17.4	18.8	21.9	17.1	16.3	19.2	15.4	14.5	23.7	19.7	17.9	14.5
Minneapolis, Minn.	18.3	17.5	26.1	24.1	20.1	17.7	16.2	15.6	16.9	19.1	20.7	15.6
Mobile, Ala.	13.1	14.8	12.7	5.4	17.6	5.2	3.4	13.5	16.5	13.3	8.8	13.5
Nashville, Tenn.	20.5	22.2	15.9	14.0	16.5	3.4	13.7	6.8	11.8	17.3	12.7	6.8
Newark, N. J.	18.0	20.4	21.3	17.3	14.7	16.2	12.4	13.7	26.2	19.9	16.3	13.7
New Bedford, Mass.	21.7	14.4	14.1	14.7	19.8	19.3	12.0	10.1	7.1	14.2	16.0	10.1
Newburgh, N. Y.	3.5	10.5	20.8	13.8	10.2	20.3	16.8	16.6	12.0	15.7	16.4	16.6
New Haven, Conn.	18.7	20.4	22.7	18.9	14.6	22.1	15.3	11.3	20.0	18.7	18.7	11.3
New Orleans, La.	19.5	15.0	19.5	19.0	14.7	13.7	13.0	10.5	10.0	17.1	15.9	10.5
Newport, R. I.	10.8	24.9	7.0	13.9	13.8	20.4	6.7	.....	13.4	9.5	12.4	.....
Newton, Mass.	4.9	14.4	2.4	4.7	4.6	13.6	11.2	13.2	2.1	9.9	7.3	13.2
Oakland, Cal.	34.3	32.9	37.9	27.8	24.8	28.5	22.6	25.7	33.5	34.2	28.1	25.7
Omaha, Neb.	29.1	23.6	31.8	43.1	29.8	16.9	14.6	11.4	22.1	29.0	26.7	11.4
Orange, N. J.	6.6	13.0	19.3	15.9	28.3	15.5	9.2	9.1	14.1	12.7	17.6	9.1
Passaic, N. J.	8.8	12.1	17.0	13.4	6.6	16.3	8.0	7.9	12.5	10.4	12.2	7.9
Paterson, N. J.	15.7	20.2	19.3	23.7	18.2	18.1	17.9	14.1	16.5	19.3	19.4	14.1
Petersburg, Va.	23.5	19.1	14.9	25.4	17.7	6.9	13.5	9.9	16.4	17.6	15.6	9.9
Philadelphia, Pa.	17.0	17.7	16.5	16.6	15.5	15.1	13.0	11.7	15.3	17.6	15.3	11.7
Pittsburgh, Pa.	19.3	16.2	17.1	15.7	13.1	14.5	12.6	10.5	19.8	19.4	14.6	10.5
Pittsfield, Mass.	5.9	14.2	13.9	16.2	10.6	12.9	15.1	9.8	9.0	7.9	13.7	9.8
Portland, Me.	18.1	19.4	12.7	12.5	18.5	12.1	11.9	14.7	15.9	13.0	13.5	14.7
Portland, Ore.	24.4	25.2	29.0	24.1	21.0	13.6	14.1	16.6	21.0	26.3	20.2	16.6
Providence, R. I.	16.6	14.6	16.3	15.6	11.8	14.2	13.2	9.3	18.8	15.9	14.2	9.3
Pueblo, Col.	27.0	43.0	34.1	22.8	11.5	13.8	13.5	13.9	25.6	25.8	20.2	13.9
Quincy, Ill.	16.5	13.7	8.3	16.5	19.3	13.8	11.1	16.6	14.3	18.1	13.8	16.6
Reading, Pa.	15.2	30.0	20.8	29.4	12.6	16.3	14.2	15.9	13.9	23.0	18.6	15.9
Richmond, Va.	13.7	20.3	10.4	11.6	8.3	9.5	11.2	8.0	11.9	14.3	10.2	8.0
Rochester, N. Y.	13.7	18.6	22.9	21.4	20.8	12.5	9.6	14.2	16.4	18.7	17.2	14.2
Sacramento, Cal.	34.7	31.3	41.4	56.1	41.8	37.0	24.3	32.9	34.3	36.7	39.7	32.9
St. Louis, Mo.	34.8	33.8	37.3	37.3	28.0	24.4	18.0	18.7	32.7	33.1	28.9	18.7
St. Paul, Minn.	17.8	22.2	18.0	25.8	19.9	17.1	13.9	16.3	15.9	16.5	18.9	16.3

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1904-1908.	1909-1913.	1914-1918.	1919.
Salem, Mass.	13.8	6.9	9.2	9.3	13.9	9.3	18.7	21.1	9.7	10.1	12.1	21.1
Salt Lake City, Utah	31.7	35.9	24.3	19.0	19.4	21.7	6.2	12.1	19.7	30.1	18.0	12.1
San Diego, Cal.	34.1	45.6	44.5	55.8	62.5	32.7	33.9	32.3	40.9	38.9	45.4	32.3
San Francisco, Cal.	46.4	49.5	51.8	55.8	50.7	39.7	39.6	33.9	50.8	46.5	47.3	33.9
Savannah, Ga.	2.9	18.5	12.5	12.2	11.9	6.5	8.8	11.1	11.3	12.5	10.3	11.1
Scranton, Pa.	6.8	9.8	15.0	17.9	8.2	4.4	10.3	5.8	9.0	9.4	11.1	5.8
Seattle, Wash.	33.2	26.2	32.9	35.6	18.5	21.1	15.6	19.8	26.7	32.2	24.5	19.8
Somerville, Mass.	8.7	4.9	9.5	8.2	5.8	11.3	14.4	5.5	4.2	6.1	9.9	5.5
Springfield, Ill.	35.6	33.2	34.6	36.0	23.1	19.3	29.4	25.7	25.5	34.3	28.4	25.7
Springfield, Mass.	21.5	15.8	11.4	14.6	13.2	11.1	6.6	13.6	13.0	18.2	11.3	13.6
Spokane, Wash.	19.2	20.1	37.4	28.8	16.3	16.3	11.5	17.3	23.7	22.2	22.1	17.3
Syracuse, N. Y.	16.0	19.7	21.2	23.3	21.5	14.3	12.1	10.7	11.0	18.6	18.4	10.7
Tacoma, Wash.	45.1	27.4	29.2	22.1	19.6	12.9	20.1	14.6	19.4	31.9	20.7	14.6
Toledo, O.	19.1	21.0	18.7	19.0	19.7	24.0	20.2	19.5	17.6	22.3	20.4	19.5
Trenton, N. J.	16.7	17.3	21.7	12.9	17.2	13.3	13.9	17.1	12.0	15.3	15.7	17.1
Washington, D. C.	25.3	19.8	17.9	22.4	22.3	18.5	16.3	13.1	19.6	24.7	19.4	13.1
Wheeling, W. Va.	24.9	15.4	25.7	12.5	16.2	13.9	11.6	7.5	20.2	21.8	15.8	7.5
Williamsport, Pa.	.....	9.0	20.8	11.7	23.2	17.2	8.5	5.6	9.8	8.7	16.2	5.6
Wilmington, Del.	9.8	14.8	14.5	12.1	15.8	16.4	11.4	13.9	10.4	11.8	14.0	13.9
Worcester, Mass.	17.1	17.4	17.1	12.5	12.9	13.8	13.0	11.6	14.2	12.6	13.8	11.6
Total	19.5	19.7	21.0	21.0	18.1	16.9	14.6	14.2	19.1	20.0	18.2	14.2

Leaping from Great Heights.

There is another peculiar method of suicide apparently on the increase, and that is by jumping from tall buildings with the obvious risk of death to passing pedestrians on the streets below. During the year, among others, a salesman jumped from the eleventh floor of an office building on West Twenty-fifth street, striking within less than ten feet of the nearest pedestrian. A broker's wife, living on Riverside Drive, New York, jumped from the twelfth story window of her home to the courtyard below, having been suffering from despondency after a nervous breakdown. A salesman leaped from the thirteenth floor of the Woolworth Building twenty minutes after he had entered the office in an apparently thoroughly sane and happy condition. An actor jumped from the seventeenth floor of the Aeolian Building, who left a curious note addressed to the newspapers, reading "How one feels just before death by jumping from the eighteenth story of a building."

Children's suicides are apparently not as frequent in this country as abroad, but some suggestive cases occurred during the year, particularly that of a boy twelve years of age, who died at Cheyenne, Wyo., an adopted orphan child under the placing-out system, apparently unhappy in his home surroundings. Then there was the case of a fourteen-year-old Jewish girl, who committed suicide by poison after the Zionist flag she had hung from a window had been torn down and assaulted.*

Ill-Health as a Cause.

The foregoing cases are but a fragment of an increasing mass of evidence that life is being more lightly considered and that the contempt for the sanctity of life is growing regardless of the fact that the suicidal rate itself has been decreasing. But there is another aspect of this question which should arouse the attention of psychiatrists and experts in mental diseases, and that is the growing number of instances of cases in which ill-health is attributed as one of the predisposing causes. In many

* The cases of child suicide are perhaps the most appalling aspect of the problem. During the year under review one boy four years of age threw himself into a pool of water after leaving on record the remark: "I am going to jump in here and drown myself."

such cases the threat to commit suicide was complacently ignored as a remote probability, although the risk of self-murder was reasonably obvious. Cases are not at all uncommon in which second and more attempts at suicide are finally successful. Such a case, for illustration, was reported in *The Sun,* of New York, of July 21, 1919, in which a woman, a resident of Newark, slashed her throat, having but a few days previous attempted suicide by inhaling illuminating gas. The most interesting cases in this group are probably those in which cancer is alleged as a predisposing cause of suicide. Such cases are sufficiently common to affect in a minor degree the cancer death rate, which is unquestionably somewhat higher than is disclosed by the recorded mortality from this group of causes. The capacity to endure pain, and the willingness to suffer, is seemingly diminishing, while the complacent view is gaining ground that death ends all, and that life is in very truth not worth living unless lived pleasantly and agreeably. One of the most suggestive cases of recent years was that of a noted life-saver on the New Jersey coast, who died in the United States Marine Hospital at Stapleton, Staten Island, N. Y., after having stabbed himself twenty-one times with a penknife in a fit of despondency on account of illness. He had a long record of lives that he had saved, only to sacrifice his own life in the end. Cases are also relatively common in which threatened blindness or paralysis is alleged as a cause, and occasionally old-age and approaching decrepitude is given as a reason, while in others the thought of an approaching operation was sufficient to induce self-murder. Among the illnesses unquestionably directly contributory to suicide cases, influenza was apparently an important factor in the mortality of 1918, although here again not sufficient to bring about a rise in the rate over previous years. It, however, is not going too far to say that ill-health as a factor in mental depression is probably one of the most important predisposing causes of suicide, deserving of much more thoughtful consideration on the part of both the physicians and nurses in charge of patients suffering from fits of melancholia, with or without indications of violence.

The foregoing are but fragmentary indications of a phase of social pathology which is certain to assume more serious proportions as long as the present complacent and indifferent attitude of the public continues. Suicide is a problem of considerable practical importance to life insurance companies, but much more so to the public at large, the medical profession and the State. The attitude of public apathy in this matter is an appalling indication of the mental and moral obtuseness of the age in which we live. Perhaps the saddest commentary on the growing contemptuous viewpoint of human life and its moral and spiritual responsibilities was the death of a woman during the present year who attempted suicide by drinking iodine during service at Trinity Church. A corresponding case was the murder of a prominent citizen in a fashionable church on Fifth avenue, New York, last year. The church has been as indifferent to the crime of self-murder as any other public agency in a position to render service in the furtherance of an effort to arouse the public conscience and the public intelligence to devise methods and means by which a deliberate reduction in the frightful waste of human life can be brought about. On the basis of the latest available data for the registration area the number of suicides in the continental

United States for 1920 may be conservatively estimated at not less than 12,000.

This annual waste of useful human lives by self-murder is an indictment of our civilization, as much so as the corresponding and lamentable excessive annual record of homicides. It should not be impossible to devise methods and means of suicide prevention in a reasonable proportion of the cases. The only effective effort in this direction at the present time is through the agency of the Save-a-Life League, of which the Rev. H. M. Warren, D. D., is the president. This league is the means of preventing annually a number of suicides, as shown by the indisputable evidence of numerous letters and other records on file. But effort on a much larger scale is most urgently called for, since it is absolutely out of the question for a single individual, wanting in adequate financial support, to carry on a task which requires both exceptional courage, and physical as well as moral and spiritual strength. How far the efforts of the league have been successful in reducing the number of suicides is not, of course, a matter of record, but it is safe to assume that it has been instrumental in this direction, since the correspondence extends to all parts of the United States. This saving of life is a matter of no small importance to life insurance companies, since the evidence is increasing that suicides among the well-to-do, and even the very rich, are by no means rare. Suicide in life insurance is an unnecessary waste of policyholders' funds otherwise available for distribution in the form of mortuary dividends; but the work of the league should appeal with peculiar force to those who take the Christian viewpoint that suicide is a sinful reflection upon the human capacity to suffer and to endure whatever the ills or calamities of life may be. Suicide proves, in the vast majority of cases, the failure of the Christian religion to effectively reach those who are most in need of its beneficent influence in the hour of overpowering temptation. The funds required for such an effort are a minor consideration, for the major object is to arouse the sympathy of those whose aid and counsel, and substantial assistance, can save the countless many who now go down the road of self-destruction for the want of Christian charity and true helpfulness. Most pathetic is the long record of war suicides, due to a multiplicity of emotional, economic and other causes not reflected in the annual returns. The annual toll includes a long list of college professors, clergymen, physicians, lawyers, etc. An analysis of the cases for even a single year would make a most useful contribution to knowledge and possibly end the apathy of the medical profession, and particularly of those concerned with mental diseases.—*The Spectator,* December 2, 1920.

SUICIDE RECORD OF 1920.

It has not been practicable to present the suicide statistics of American cities at an earlier date, but the data have value for purpose of comparison, with a due regard to the fact that the conclusions for 1920 do not apply to those for 1921. It is regrettable that there should be so much delay in securing the data for the entire number of cities presented in the annual review within a reasonable period after the close of the preceding year, but the difficulties in this respect seem to have increased rather than diminished.

The year 1920 was, broadly speaking, one of considerable prosperity, at least during the first half, if the record of business failures can be relied upon as indicative of economic progress. During the last three months of the year, however, failures increased considerably above the normal average during the preceding few years, followed by a further rise, and during the whole of 1921 there was a very substantial increase in the liabilities represented. There is no question of doubt but that there is a fairly consistent correlation between the rate of business concerns going into bankruptcy and the rate of suicidal frequency. Business failures, of course, are but one of many causes and conditions affecting the suicide rate and it requires profound changes in economic conditions to bring about a measurable effect. There are other social and economic factors which enter into a problem which it is regrettable should not as yet have received the qualified consideration of those who are in a position to make the necessary extended inquiries.

The first table [omitted] shows the suicide rate of one hundred American cities during the twenty-one year period 1900-1920. The rate for the last year under review was the lowest on record, or only 12.3 per 100,000 of population, compared with a maximum rate of 21.5 per 100,000 for the year 1908. That year also was one during which business failures reached a high point of relative frequency, although less than during the year 1915, which for recent years marks the most widespread economic distress.

The second table [omitted] gives the geographical distribution of suicides for the period 1905-1920. According to this table the Pacific Coast section retains the unenviable position of an excessive relative frequency of self-murder, the average rate having been 29.1 per 100,000 against 16.8 for the country at large and 14.0 for the Southern States.

The third table [omitted] presents the suicide rate of one hundred American cities in detail for three quinquennial periods and the year 1920 separately. Comparing the last year under review with the preceding five-year period, the suicide rate decreased practically throughout the entire country, the rate being higher in only 11 cities. The increase is limited almost entirely to large centers of population, the most pronounced increase having taken place in Omaha, Neb., where the suicide rate for 1920 was 41.5 per 100,000, compared with 12.3 per 100,000 for the country at large. The suicide facts for 1920 present a most unusual social phenomenon. While business failures, assumed as an index of economic prosperity, reached next to the lowest figure on record since

1900, or 8,881, compared with 22,156 for 1915, it is safe to assume that other important factors operated to bring about a lowering of the rate. While it may be hazardous to advance the conjecture, it is reasonable to assume that national prohibition has had some bearing on the result. A long experience with suicide cases justifies the conclusion that in a perceptible number of such cases excessive indulgence in alcoholic drinks was in former years an important contributory cause.

Such cities as Hoboken, Milwaukee and St. Louis, which in former years invariably stood at the head of the list, hold today a much more normal position. If drug habits have increased as much as is often asserted to be the case, the available suicide statistics do not support this conclusion.

The fourth table [omitted] shows the suicide rate by method, indicative of a decided diminution in the frequency of suicide from poison, or from a rate of 4.4 for the first five years to 2.3 for the last five years of the decade ending with 1919. This is perhaps one of the most hopeful signs suggestive of more caution and care in the sale of poisons to those obviously suffering mental distress.

It may be said in this connection that the statistics of the *Chicago Tribune* for the period 1904-1914 attribute 2.6 per cent of the suicides to liquor. It is most regrettable that this useful compilation should have been discontinued by the *Tribune* for reasons unknown.

The present indications are that the suicide rate for 1921 will exceed the rate for 1920. But the increase will probably not be as serious as anticipated on the basis of the increase in business failures. Through the courtesy of the local health officials I have been furnished with advance statistics for the representative population centers, with the following results:

Comparing 1920 with 1921 the suicide rate of Baltimore increased from 11.8 to 13.5; Fall River, 5.0 to 8.3; Newark, 11.3 to 16.0; New Haven, 8.5 to 13.2; New Orleans, 10.3 to 17.0; New York (Manhattan and Bronx), 13.5 to 14.5; Philadelphia, 10.5 to 13.8; Rochester, 10.3 to 12.0; Salt Lake City, 10.0 to 15.6; Seattle, 22.8 to 23.2.

Much needless alarm has been caused by the wrongful use of suicide statistics collected by the Save-a-Life League, which aims at suicide prevention by giving much-needed help, advice and material assistance to those who have self-murder in contemplation. Thus a statement in the *Medical Record* of August 13, 1921, reading that "During the first half of 1920 there were reported to the league 2,771 suicides in the United States, against 6,509 for the corresponding period of 1921," is neither a statement of fact nor a contribution to knowledge. There has been no such increase in suicide during 1921, although as pointed out the rate for last year will unquestionably be somewhat in excess of the corresponding rate for the present year.

In the same publication occurs the statement that out of 443 suicides in New York City during the first six months of 1921, 225 were children. There are absolutely no reasons for believing that such an enormous proportion of the suicides in New York City were children. It is based upon newspaper clippings, which give prominence to child-suicide cases and lead to many repetitions and false conclusions in consequence. Of the suicides in the United States registration area in 1919 only 0.4

per cent were under fifteen years of age, and there is no evidence to be derived from any source that child suicides in this country show "an alarming rate of increase." But every child suicide is a lamentable occurrence, and most of all when directly attributed to a false system of education. A number of cases occurred last year (as in former years) in which children unable to pass a purely fictitious test of educational proficiency ended their lives in a moment of despair. But such cases have always occurred and will continue to occur until the present system of school examinations is radically changed.

How far the experience of industrial insurance companies can be relied upon as an index of national well-being is open to question. While the experience represents a large section of the American population, it certainly does not represent the whole of it. According to a preliminary statement of the Metropolitan Life Insurance Company, issued under date of August, 1921, the suicide rate of industrial policyholders had increased twenty-six per cent over the corresponding rate of 1920. No statistics in detail are presented, and, as said before, there is nothing to justify alarmists' conclusions on the basis of preliminary data for 1921 such as have been briefly referred to.

No adequate investigation of the suicide problem has been made during recent years. The elaborate researches of Morselli (published in 1882), of Strahan (1893), and of O'Dea (1882), are now out of date and require to be brought down to the present time. The available material on the subject has enormously increased, while new aspects have been developed which could not be taken into account by earlier authorities. It is curious that the most ambitious recent statistical investigations of the suicide problem should have been made by the Statistical Bureau of Spain, although the suicide rate of Spain is the lowest of twenty-six European countries for which recent data are conveniently available. The Spanish investigations are in two volumes, and extend over the period 1906-1917; but, while adding much to our knowledge concerning local conditions, fail to meet the required need of an international survey which shall present really conclusive results useful in the furtherance of preventive medicine. From the last volume of Estadistica Suicidia en Espana, I quote the following international statistics as an illustration of the wide divergence in local frequency rates and the uselessness of drawing conclusions from general sources, such as density of population, intercommunication, industrial development, racial composition, religious beliefs, cost of living, etc. It will be noted that the United States holds practically a midway position between the extremes of the rate for Saxony—356 per 1,000,000 of population—and for Spain—45 per 1,000,000 of population. Equally curious is the position of Japan, between New Zealand on one side and the Australian Commonwealth on the other. Evidently the time has come for a thorough inquiry into the whole subject of self-murder free from the earlier classical and religious speculations which have led nowhere.

Rate per 1,000,000.

Rank.	Place.	Rate.	Rank.	Place.	Rate.
1.	Saxony	356	14.	New Zealand	140
2.	Bosnia-Herzegovina	303	15.	Japan	114
3.	Switzerland	241	16.	Australia	108
4.	Germany	232	17.	Finland	100
5.	France	229	18.	Belgium	98
6.	Austria	204	19.	England and Wales	96
7.	Wurtemburg	199	20.	Italy	87
8.	Prussia	196	21.	Netherlands	76
9.	Hungary	191	22.	Servia	65
10.	Denmark	181	23.	Norway	57
11.	Sweden	181	24.	Scotland	55
12.	Bavaria	167	25.	Portugal	50
13.	United States	161	26.	Spain	45

The suicide problem remains one of the inexplicable aspects of a so-called civilization resting essentially upon a concept of material power, progress and satisfaction. When the suicide rate of the Registration Area for 1920 is applied to the population of the country at large, the annual number of deaths due to self-murder may be conservatively placed at 10,600. The actual number is unquestionably greater, in that it is becoming increasingly difficult, under our present crude coroner system, to establish precisely the facts of a death from self-murder, now often erroneously classified as an accident. As a mere guesswork speculation, the thought may be advanced that the number of dramatic suicides is increasing. There was, for illustration, last year a case of a man who committed suicide near Superior, Wis., who was found hanging from a blue and red painted cross in the parlor of his home. He had taken two photographs of himself in this posture before death. In Salem, Mass., a man who had more than once asked his friends the question, "Is a man who commits suicide a coward?" some time during last year went out of his house and chewed upon a dynamite percussion cap, which exploded with disastrous results. A Russian student at the International Baptist Seminary, East Orange, N. J., killed himself with gas in his room, after writing a note to the effect that "all is vanity." A real estate agent, after taking a room at the McAlpin Hotel, killed himself by shooting while sitting in a bathtub. He had written to his wife informing her of his intention to do so. A young man, apparently crazed by the heat last summer, raced half clothed down Fifth avenue, climbed the railing of the Central Park reservoir, and drowned himself before a crowd of spectators. A boy of fifteen hanged himself in his bedroom after seeing a motion picture version of a suicide after Mark Twain's story, "A Yankee at the Court of King Arthur." Another boy, twelve years of age, of Glen Rock, N. J., ended his life because he was not invited to a wedding. Despondent over the results of a long series of nervous disorders, a millionaire and son of a former president of the New York and New Haven Railroad, stabbed himself with a knife, it being claimed that this method had been suggested to him by the manner of Orientals. From Worcester, Mass., a case was reported of a man alleged to have crawled into a furnace to kill himself. There can be no question that many, if not most, of such and similar cases are indica-

tive of mental aberration, directly the result of an unwholesome environment, fostered by the artificial tendencies of the present age. While it would be going too far to define the average suicide as a criminal, it would be going equally too far to assume that the average suicide is mentally irresponsible. The root of the evil is a false sense of social and moral and spiritual responsibility, which is for the pulpit, the school and the press to correct. But it is likewise the duty of society to afford the means of meeting perplexing and apparently hopeless problems to those who are on the verge of suicide and to whom helpful advice at the right moment may prove the means of saving life and preventing the committing of a deed which must ever rank as the most unworthy of actions and an indictment of the civilization to which we point with pride.

A careful study of suicide cases is most likely to yield results of real value in the furtherance of efforts aiming at the prevention of many obviously needless deaths from self-murder. Some recent correspondence in the *British Medical Journal* on suicide in borderland cases is particularly suggestive of this point of view. Threats of suicide, or its contemplation, are usually treated with derision and contempt instead of being taken as seriously as they deserve to be. If suicides in insane asylums are not as common as might be supposed, the fact must not be overlooked that special safeguards are employed to protect the mentally deficient against themselves.

Careful inquiry into a number of individual cases of suicide is suggestive of a growing tendency towards the employment of methods and means that make a conclusive verdict in suicide cases most difficult. The psychology of suggestion unquestionably plays a powerful part in cases where a suicide record in the family is assumed to represent an hereditary tendency. There has unquestionably been a lowering in moral fiber on the part of many weak-minded members of the society, who find themselves unequal to meet the struggle of an environment of infinite complexity. One of the most pathetic suicides of recent years was that of a crippled boy who ended his life in the Passaic River after having been taunted to the point of desperation by his playmates because of his malformations. Equally suggestive is the suicide of Charles W. Whittlesey, famous as the commander of the "Lost Battalion" of the 30th Infantry, who ended his life by leaping from a United Fruit Company's steamship on her way to Havana. Of interest also is the suicide of a well-known architect who ended his life in the public writing room of the Ritz-Carlton Hotel. Quite unusual was the attempted suicide of a criminal confined in the Tombs, who, after saturating his clothing with kerosene, set fire to himself, being saved only by the heroic efforts of those who were near him.

Typical, as has been pointed out in the past, is the growing tendency of suicides to jump from high places. Suggestive in this connection is the death of a well-known real estate broker who recently jumped from the twenty-fifth floor of the New York Municipal Building. Such cases emphasize the urgency of special precautions in view of the well-known tendency of would-be suicides to be influenced by dramatic suggestion.

In this connection mention may be made of an unsuccessful attempt on the part of a condemned murderer on the night before his electrocu-

tion in Sing Sing. His case recalls the legal argument advanced in a well-known suicide litigation of some years ago, when stress was laid upon the special inclination of persons accused or convicted of crime to commit self-murder. The investigation made at the time conclusively proved that persons apprehending conviction, or recently convicted, exhibited a distinctly higher suicide rate than the normal population.

Suicide, in brief, is a much more involved problem than merely one of an aberration of mentality predisposed to crime. Suicide is an exceedingly complex social phenomenon, which should attract the attention of psychologists, medical men and students of social conditions to a much larger extent than is actually the case. From a life insurance point of view suicide today more than ever represents a serious menace to the best interests of the policyholders, who pay heavily in premature losses of lives assured upon the assumption of normal duration. Suicide is always contrary to public policy, and few aspects of modern life demand a more searching inquiry into the facts and the possible means of prevention.—*The Spectator,* March 9, 1922.

STATISTICIAN IS PUZZLED BY HIGH SUICIDE RATE THROUGHOUT WEST.

Frederick L. Hoffman, third vice-president and satistician of the Prudential Insurance Company of Newark, N. J., who has an international reputation for his compilations of figures relative to life and death, has prepared some significant comparisons for the Santa Barbara *Daily News*. At the request of this paper Mr. Hoffman has given suicide statistics in Santa Barbara, Ventura and San Luis Obispo Counties. His letter is as follows:

"Agreeable to your request, I have made a further effort to secure suicide statistics for Santa Barbara, San Luis Obispo and Ventura. Through the courtesy of Mr. L. E. Ross, State Registrar of Vital Statistics, Sacramento, I have been furnished with the necessary data for the last five years, which yield the following comparative rates. But it may be advantageous for me to first point out that the normal suicide rate for American cities during the five years 1915-1919 was 16.8 per 100,000, while for the year 1920 the rate was 12.3, but for San Francisco the average rate for 1915-1919 was 43.7 per 100,000, while for 1920 it was 25.6.

"For Santa Barbara the average rate for 1917-1920 was 13.8 per 100,000, while for 1921 it was 16.2. For San Luis Obispo the average rate was 17.3 and the rate for last year was 13.5. For Ventura the average rate was 11.8 and the rate for 1921 was 16.5.

"If, therefore, the average rates are used as a comparison with the rates for San Francisco, which is much more typical of the Pacific Coast than the rate for the country at large, the suicide experience of the three South California communities reveals nothing alarming, and while the rates, particularly for San Luis Obispo, are somewhat high, they are in all cases based upon relatively small numbers.

"I should, perhaps, have said that the number of actual suicides in Santa Barbara in 1921 was 7, in San Luis Obispo 3, and in Ventura 5.

"No satisfactory explanation has ever been made as to why suicides should be relatively of extraordinary frequency on the Pacific Coast. During 1920, for illustration, the rate for San Diego was 26.2, for San Francisco 25.6, for Seattle, Wash., 22.8; for Sacramento, Cal., 22.4; for Spokane, Wash., 22.0, and for Los Angeles, 19.5.

"By way of contrast it may be pointed out that the rate for Manhattan and Bronx was 13.5, Chicago 13.4, for Newark 11.3, and for Philadelphia 10.5.

"The suicide question has never received the required extended, dispassionate and qualified consideration to which it is entitled. Every suicide is a contemptuous disregard of the supreme obligation of life to endure our fate, be it what it may, with faith and confidence in the time that is yet to be. Southern California especially holds so many natural

attractions, with practically boundless opportunities for the realization of worldly ambition, that the high rates of suicide common to the cities referred to are clearly traceable to a growing materialism and skepticism which the church, the press and the schools should effectively oppose.

"In Santa Barbara, San Luis Obispo and Ventura in the last five years sixty-five persons have ended their own lives practically for reasons unknown or hardly guessed at. Is it not a fair inference that however lamentably these lives may have failed individually, there was a corresponding failure on the part of society to hold out a helping hand to many of these unfortunates in serious distress?

"In New York City there has been in existence for some years a 'Save-a-Life League,' which serves the purpose of advice and assistance to those who may contemplate suicide. It would seem to me well worth while for the people of Southern California to seriously consider the organization of a local branch of this association, which in any event would represent an effort to meet a lamentable situation."

—*Santa Barbara Daily News,* April 15, 1922.

THE SUICIDE RECORD OF 1921.

Suicide cases fill the newspapers as a matter of routine and without attracting the slightest serious attention. Suicides are expected as a matter of course, just as years ago yellow fever reports from the South were looked forward to with apathy and indifference. Except for some sensational or dramatic feature, suicidal occurrences leave the public unmoved. Every day, cases occur which bear evidence of soundness or unsoundness of mind which, at least, would seem to suggest the value of medical concern with borderland cases. Collectively, the amount of preventable loss of life involved in these cases is assuming considerable proportions, yet no disease receives less attention than this largely unnecessary affliction of civilized mankind. While every problem of social welfare or economic advance has its well-supported and active organization, self-murder is left alone. The only organization concerned with the prevention of suicide is the "Save-a-Life League," under the direction of the Reverend Mr. Warren of New York City, poorly supported and inadequately financed, yet serving a useful purpose, the value and extent of which cannot be measured in the number of cases which receive attention. There is the most urgent need for an adequately financed national effort, on the one hand, concerned with research into underlying conditions, and, on the other hand, for the establishment of agencies adequate to deal with a lamentable situation.

Life insurance companies have a direct pecuniary interest in this matter, for no amount of mortality waste falls more needlessly upon the policyholders, whose dividends are reduced or whose cost of insurance is increased as a result of self-murder. While the suicide rate properly finds expression in the normal premiums charged for life insurance purposes, there are reasons for assuming that, in a measurable number of cases, companies are seriously imposed upon by those who seek insurance protection while contemplating self-destruction.

A recent case in point is the suicide of a well-known man, a member of a New York banking firm, who concluded a final letter to his brother with the statement that "the insurance will take care of my debts." The banking firm was not known to be in financial trouble, but subsequent experience seemed to prove the contrary. Cases like the foregoing, which are not uncommon, are suggestive of every possible precaution, particularly where large amounts of insurance are involved. The famous "Blair" case of Missouri may be referred to in this connection as evidence of the wrongfulness of legislation which makes suicide not a defense to an action in which a restrictive clause is insisted upon as necessary for the company's protection. Some twenty years ago, the experiment was tried of making policies non-forfeitable, in the event of suicide, from date of issue, but the experiment was soon discontinued as opposed to the best interests of all concerned.

Suicide is essentially an evil of so-called civilization. While suicide is met with among all peoples, the most highly civilized contribute the largest proportion of deaths from self-murder. An excellent illustration

is the comparative suicide rate of the white and colored populations. Table V has been prepared [omitted] for the purpose of showing the facts for the Southern States, with comparative data as to homicide and the relative rate of murder; the rate for self-murder being taken as 100. This table shows that the average suicide rate for the white population in the Southern States was 7.6, while for the colored population it was 1.9. In contrast, the average homicide rate was 6.0 for the whites, but 20.8 for the colored. In the case of Southern white people, there were 79 homicides to every 100 suicides. The proportion for colored people was 1,305 homicides to every 100 suicides, reaching as high a figure as 27.36 in the case of Mississippi, where, likewise, the ratio for the white population was almost twice the normal for the Southern States, or 140. The variations in rates and ratios emphasize the complex nature of the suicide and homicide problems, which make it rather hazardous to draw far-reaching conclusions from a single year's experience. But in the present case, the data has been combined for a five-year period, yielding, on the whole, fairly trustworthy results.

Some time during the present year, the claim was made of an extraordinary increase in the suicide rate of New York City. I took special care to ascertain the facts, and found that during the first six months of 1921 there had been 430 deaths from suicide. During the first half of 1922, there had been only 415, proving once more the recklessness of much of the statistical guesswork that impairs a scientific study of the suicide problem.—*The Spectator,* December 21, 1922.

THE SUICIDE RECORD FOR 1922.

The suicide rate of the country rises and falls with the tide of prosperity or depression approximately indicated by the curve of business failures. The rate for 1922 was slightly lower than for 1921 and the present indications are that the rate for the current year may approach the low figures of 1918-19. But the crest of the self-murder wave is of much less importance than the enormous substratum of wasted lives that seem foredoomed to self-destruction under present-day conditions of public apathy and indifference. Where millions are spent on research of every kind, on libraries and art galleries, much of it useless, not a dollar is forthcoming from a generous source to endow the useful work of the "Save-a-Life League," which alone stands for the helping hand called for by the complex problems of those who live in the borderland of sanity and insanity, and who are always on the verge of a breakdown often ending in disaster, disgrace and death.

The suicide rate for the entire country is probably near to 15 per hundred thousand, when proper allowance is made for the many self-inflicted deaths that escape accurate identification. As is the case with murder, to an increasing extent skillfully disguised means are employed to hide the true state of facts and often the identity of the suicide itself. From a life insurance point of view, this difficulty is one of serious concern where large sums of insurance are involved, and where the payment of the claim depends upon the coroner's verdict. Accepting a rate of 15 per hundred thousand, the probable number of deaths by suicide at the present time is between 15,000 and 16,000, representing a toll of self-inflicted deaths added to substantially by the annual murder toll placed at not less than 10,000 more.

The first table following has been kindly supplied by the Director of Vital Statistics of the Census, showing the suicide rates by single years for the decade ending with 1921 for the entire registration area, the registration cities and the four states which, in 1912, led all others in the degree of suicidal frequency. For 1921, the ten states leading in suicidal intensity were, in order named, California, 27.0; Washington, 20.7; Montana, 16.3; Oregon, 16.1; Colorado, 14.8; Illinois, 14.7; Indiana, 14.7; Connecticut, 14.3; New Jersey, 13.7; and New York, 13.6.

Table I. The Suicide Rate of American States—1912-21.
Rate Per 100,000.

Year	Registration Area	Registration Cities	States of Greatest Suicidal Frequency*			
			Cal.	Wash.	Mont.	Colo.
1912	16.0	18.7	30.6	22.2	20.0	19.7
1913	15.8	18.9	30.8	20.3	26.5	22.1
1914	16.6	19.9	32.5	24.5	27.7	19.2
1915	16.7	19.7	34.3	24.2	22.0	18.8
1916	14.2	17.4	30.6	14.4	23.2	13.3
1917	13.4	16.3	28.7	15.0	22.4	13.7
1918	12.2	14.2	24.9	14.6	18.6	14.6
1919	11.4	13.6	24.8	14.1	15.9	14.2
1920	10.2	12.0	20.1	18.0	15.4	15.7
1921	12.6	15.0	27.0	20.7	16.3	14.8

* In 1912.

Table II summarizes the official returns of 76 American cities furnished in advance through the local health officers, or through the co-operation of the Census Office. In 1922, these cities had a total population of nearly 27,000,000, or about ¼ of the population of the whole country.

Table II. Suicides in 75 American Cities—1900-1922.

Year	Population	Suicides	Rate Per 100,000 Population
1900	15,754,952	2,496	15.8
1901	16,276,042	2,600	16.0
1902	16,797,132	2,879	17.1
1903	17,318,222	3,220	18.6
1904	17,838,310	3,427	19.2
1905	18,360,402	3,374	18.4
1906	18,881,292	3,237	17.1
1907	19,402,582	3,718	19.2
1908	19,923,672	4,347	21.8
1909	20,444,762	4,226	20.7
1910	20,965,791	4,182	19.9
1911	21,459,194	4,432	20.7
1912	21,942,680	4,335	19.8
1913	22,445,145	4,457	19.9
1914	22,959,571	4,857	21.2
1915	23,433,016	4,968	21.2
1916	23,926,462	4,369	18.3
1917	24,419,907	4,152	17.0
1918	24,913,353	3,671	14.7
1919	25,406,798	3,663	14.4
1920	25,899,849	3,245	12.5
1921	26,383,395	4,180	15.8
1922	26,866,933	4,045	15.1
1902–1906	89,195,358	16,137	18.1
1907–1911	102,196,001	20,905	20.5
1912–1916	114,706,874	22,986	20.0
1917–1921	127,023,302	18,911	14.9
1922	26,866,933	4,045	15.1

According to this table, the suicide rate for 1922 was 15.1, or 0.7 per hundred thousand less than the rate for 1921. This slight decline, no doubt, reflects the prosperous condition of the Nation and foreshadows a still further decrease in the rate during the present year. But the actual effect of such a decrease is not material, when the suicide loss in the aggregate is considered. In other words, a difference of one per cent per hundred thousand represents about 1,100 suicides, while the total loss from self-inflicted murder is from 15 to 16,000 per annum. But, contrasted with the rate of 21.8 prevailing during 1908, and of 20.7 prevailing during 1911, the rate for 1921 indicates a gratifying reduction, which may be attributed primarily to improved economic conditions as indicated by a lesser number of business failures, higher wages and diminished unemployment.

Table III gives the actual statistics of suicides for 76 cities for the year 1922. The leading centers of suicidal frequency, in the order named, were San Diego, 47.8; Sacramento, 37.9; San Francisco, 30.4; Los Angeles, 30.3; Portland, Oregon, 27.2; Seattle, 27.1; Trenton, 24.0; and Denver, 23.9. Other cities with rates of 20 or more per hundred

thousand are Haverhill, 23.1; Omaha, 22.5; Spokane, 21.9; Petersburg, Va., 21.4; Louisville, Ky., 21.1; St. Louis, 20.0; Salt Lake City, 20.0. Thus, out of 76 cities during the year 1922, 14 experienced suicide rates of 20 or more per hundred thousand of population, and of these 7 were of the Pacific Coast, 4 of the Rocky Mountain region or the Central West and only 3 of the East and South.

Table III. Suicides in 76 American Cities—1922.

	Population	Deaths	Suicide Rate Per 100,000
Baltimore	778,015	121	15.6
Boston	768,236	108	14.1
Bridgeport	154,335	24	15.6
Brockton	68,721	7	10.2
Brooklyn	2,117,768	225	10.6
Buffalo	528,060	62	11.7
Camden	121,887	10	8.2
Chicago	2,814,360	398	14.1
Cincinnati	410,927	59	14.4
Cleveland	857,179	102	11.9
Columbus	251,318	23	9.2
Concord	22,350	3	13.4
Dayton	161,782	25	15.5
Denver	267,696	64	23.9
Detroit	1,127,046	131	11.6
Elizabeth	101,410	13	12.8
Erie	100,185	13	13.0
Fall River	120,887	9	7.4
Grand Rapids	144,084	11	7.6
Hartford	147,956	13	8.8
Haverhill	56,377	13	23.1
Indianapolis	333,859	65	19.5
Jersey City	305,828	32	10.5
Lawrence	96,532	11	11.4
Lincoln	57,720	9	15.6
Los Angeles	642,623	195	30.3
Louisville	237,371	50	21.1
Lowell	114,456	10	8.7
Lynn	101,753	12	11.8
McKeesport	47,864	3	6.3
Manchester	80,559	8	9.9
Manhattan and Bronx	3,084,711	485	15.7
Memphis	170,573	21	12.3
Milwaukee	478,615	63	13.2
Minneapolis	401,095	63	15.7
Nashville	120,552	20	16.6
Newark	431,643	54	12.5
New Bedford	127,607	7	5.5
New Haven	169,934	14	8.2
New Orleans	399,634	47	11.8
Newport	31,227	2	6.4
Newton	47,662	7	14.7
Oakland	233,513	35	15.0
Omaha	208,634	47	22.5
Orange	34,188	5	14.6
Passaic	66,284	7	10.6
Paterson	138,583	24	17.3
Petersburg	32,750	7	21.4
Philadelphia	1,893,554	285	15.1
Pittsburgh	602,368	86	14.3
Portland, Oregon	271,908	74	27.2

	Population	Deaths	Suicide Rate Per 100,000
Providence	241,267	25	10.4
Pueblo	42,656	6	14.1
Quincy	35,820	6	16.8
Reading	110,837	11	9.9
Richmond	182,987	13	7.1
Rochester	315,557	32	10.1
St. Louis	795,180	159	20.0
St. Paul	239,933	37	15.4
Sacramento	71,259	27	37.9
Salem	42,294	8	18.9
Salt Lake City	124,726	25	20.0
San Diego	83,598	40	47.8
San Francisco	529,658	161	30.4
Scranton	139,965	9	6.4
Seattle	336,411	91	27.1
Somerville	97,168	5	5.1
Springfield, Ill.	61,189	11	18.0
Springfield, Mass.	139,918	16	11.4
Spokane	104,937	23	21.9
Syracuse	180,579	28	15.5
Toledo	262,029	36	13.7
Trenton	125,079	30	24.0
Washington	464,578	67	14.4
Williamsport	37,306	2	5.4
Worcester	188,396	16	8.5
Total	27,037,506	4,066	15.0

The facts of geographical distribution are still more clearly emphasized in the next table in which the returns for the period 1907-22 have been combined to eliminate the risk of chance fluctuations.

Table IV. Geographic Distribution of Suicides 1907-1922. Rate Per 100,000 of Population.

Cities by Groups	No. of Cities	1907-1911	1912-1916	1917-1921	1922
New England	20	16.0	15.5	12.9	11.4
Middle Atlantic	20	18.0	16.7	12.8	13.5
Southern	7	18.5	18.0	13.6	14.7
Central	17	22.2	31.1	20.6	14.4
Rocky Mountain	3	29.3	25.7	18.0	21.8
Pacific Coast	8	35.0	35.9	25.8	28.4
Average	....	20.5	22.0	16.2	15.1

Year after year the relative standing of the different sections and communities as regards suicidal frequency has remained much the same. Just as Memphis leads in murder, the beautiful and always sunny city of San Diego leads in self-murder. The often gloomy and cold New England States show the lowest rates, while the Rocky Mountain and Pacific Coast States show the highest. The contrast is a startling one, but no satisfactory explanation has thus far been forthcoming. Suicide is relatively two and one-half times as common on the Pacific Coast as it is on the North Atlantic. While Boston has a suicide rate of 14.1 the rate for San Diego is 47.8, or not far from four times as great, while the rate for Manhattan and the Bronx is 15.7, the rate for San Francisco is 30.4, while Portland, Ore., reports a rate of 27.2, Fall River only has a suicide mortality of 7.4!

The cities showing the lowest suicide rates were Somerville, Mass., 5.1; Williamsport, Pa., 5.4; New Bedford, Mass., 5.5; McKeesport, Pa., 6.3; Scranton, 6.4; Newport, R. I., 6.4; Richmond, 7.1, and Fall River, Mass., 7.4. What the explanation is for these wide differences remains for the time being an inscrutable mystery. Some day perhaps a Foundation with sufficient funds may concern itself with the suicide problem. But if such an investigation is ever made it would have to be in the nature of an intensive inquiry into the facts and conditions antecedent to the act of self-murder in a sufficient number of individual cases. This much, however, may be said without fear of contradiction, that suicides in this country are largely and to a measurable degree the result of the easy facilities with which firearms can be obtained, even in the cases of youth and young children.

In the table following the facts of suicide by method are shown, with the required distinction of sex. According to this table, which is derived from the consolidated returns for the registration area representing approximately 85 per cent of the total population, suicides among males caused by firearms represent 41.7 per cent of the total, or 15,457 suicides out of 37,106 which occurred among the American male population during the years 1917-21. Among females the proportion was 34.9 per cent, and equally suggestive of the menace of practically unrestricted sales of weapons for which there is no urgent need in the ordinary pursuits of a peaceful life.

Poison caused 11.7 per cent of the suicides of men and 29.3 per cent of the self-inflicted deaths of women. Next to the ease with which firearms can be obtained there is nothing more scandalous than the practice of unrestricted sales opportunities in the procuring of deathly poisons. The average druggist is seemingly indifferent to the dreadful consequences of handing out the means by which life can be, and often is, destroyed to the extent indicated by the figures quoted. A careful study of individual suicides clearly shows that it is often the easy way in which poisons can be secured that facilitates both murder and self-murder. It requires to be said, in this connection, that gas poisonings are another source of self-inflicted deaths apparently on the increase.

Year after year I have directed attention to these facts, but there is apparently no aroused public interest in what must be looked upon as an indictment of our civilization and boasted progress, which leaves to some 15,000 persons, more or less in distress, no other recourse than self-inflicted death. The pulpit is indifferent, the psychologists concern themselves with other problems, including the minds of lower animals; the press gives slight attention, while the philanthropist scorns to give aid and furtherance to the cause of suicide prevention, although many cases lie easily within reach. Life insurance companies pay heavily in needless losses, while thousands of families carry the strain of a powerful suggestion often confused with hereditary influences, which, as a matter of fact, do not play a part in the case of suicides in the same family. If students of the psychology of suggestion would concern themselves actively with the numerous and apparently increasing number of cases in which one suicide follows another in the same family, or in the same social circle, good results might follow.

Table V. Suicides by Method and Sex in U. S. Registration Area, 1917-1921.

Method	Male Suicides	Per Cent.	Rate Per 100,000	Female Suicides	Per Cent.	Rate Per 100,000
Poison	4,357	11.7	2.0	3,718	29.3	1.8
Asphyxia	3,985	10.7	1.8	2,582	20.3	1.2
Hanging	6,771	18.2	3.1	1,771	13.9	0.9
Drowning	1,885	5.1	0.9	1,324	10.4	0.6
Firearms	15,457	41.7	7.2	1,953	15.4	0.9
Cutting and piercing instruments	3,141	8.5	1.5	459	3.6	0.2
Jumping from high places	817	2.2	0.4	546	4.3	0.3
Crushing	405	1.1	0.2	118	0.9	0.06
Others	288	0.8	0.1	243	1.9	0.1
Total	37,106	100.0	17.2	12,714	100.0	6.1

Method	Total Suicides	Per Cent.	Rate Per 100,000
Poison	8,075	16.2	1.9
Asphyxia	6,567	13.2	1.5
Hanging	8,542	17.1	2.0
Drowning	3,209	6.4	0.8
Firearms	17,410	34.9	4.1
Cutting and piercing instruments	3,600	7.2	0.8
Jumping from high places	1,363	2.7	0.3
Crushing	523	1.0	0.1
Others	531	1.1	0.1
Total	49,820	100.0	11.8

Urgent Need for Investigation.

There is urgent need of a thorough investigation of the whole question of self-murder and its causation and consequences. The literature extant on the subject is largely statistical and historical, with only a slight regard to the actual facts in individual cases, which are of the very first importance from a social and economic as well as from an ethical point of view. The literature covers more than three centuries of thoughtful consideration, but it has thus far yielded results of small, if any, preventive value. It provides, however, a useful basis for further inquiry into a field where the professional psychologist and the observing medical man can render most valuable assistance. The mind of modern man differs unquestionably and essentially from the mind of the past when J. Adams wrote his essay on "Self Murther" (London, 1700), or when Heye published three dissertations on "Gambling, Duelling and Suicide" (London, 1783-5). Nor would it serve the present purposes to review the elaborate observations of H. G. Migault, whose eight historical dissertations were published in 1856, nor can much of present value be derived from the works of Morselli (1882), Westcott (1885), O'Dea (1882), and Straham (1893). All of these works are useful but a mere fragment of the larger question of mental responsibility in health and disease, and the still larger problem of perversions of conduct generally. The essential problem of the modern mind is that of intellectual and ethical confusion resulting from the increasing complexity of the economic environment, due, in a large measure, to the increasing pressure of population in its local and wider relations.

Faith, in the older sense, is unquestionably weaker, while strength of character yields more easily to circumstances which involve sorrow, suffering and even disgrace. The capacity to endure seems to have been lost by an increasing proportion of the population, while over-emphasis is placed upon material ease and possessions, with a shallow subserviency to an indifferent but always harsh public opinion. Finally, in an increasing number of cases there is reliance upon life insurance protection as a means of providing for survivors and a justification of a guilty conscience anxious to escape the material consequences of errors of judgment or of serious crimes. Hence the importance of an entirely new line of research into the whole question of suicide, the need of which is clearly shown by the present-day lamentable waste of life as the result of self-inflicted death.—*The Spectator,* June, 1923.

SUICIDES AND HOMICIDES IN ENGLAND AND AMERICA.

The London *Daily Times* of April 10 contains an interesting comparison of American and British suicides and homicides statistics in which the data annually contributed to *The Spectator* are utilized to good advantage. It would have been more to the point, however, if the comparison had been made with the principal British cities corresponding to the American cities as represented in *The Spectator* review. There are, however, no reasons for believing that the results would have been very materially different.

Of particular interest is the striking difference in the homicide rates to which attention has been drawn in a recent article in *The Spectator* as well as in the contribution to the New York *Herald*. It is only by means of such glaring contrasts in the relative mortality from violence that the truth is brought home to the American public regarding a truly deplorable situation. The article contributed by the *Times* medical correspondent reads as follows:

The official statistics (supplied by the Registrar-General) which have been recently published of suicides and homicides in this country and in America affords a remarkable contrast. The record is as follows:

Rates of Suicide per 100,000 Population.

	1912.	1913.	1914.	1919.	1920.	1921.
95 American cities	19.5	19.7	21.0	14.3	12.4	15.7
England and Wales	9.9	9.6	10.1	9.1	9.1	9.9

Rates of Homicides per 100,000 Population.

28 American cities	8.3	8.8	8.5	9.1	8.5	9.3
England and Wales	0.9	0.8	0.8	0.8	0.8	0.7

I hope some time in the near future to be able to present in some detail the suicide and homicide statistics of English cities for a period corresponding to the record of American cities ending with 1922. It is rather a matter of surprise that the subject in Great Britain should not long since have attracted more qualified consideration, for a wealth of information is available through the reports of the registrar-general, which unfortunately do not give the rates for particular localities, requiring a considerable amount of rather arduous calculation. By whatever tests are applied the contrast between the mortality from murder and self-murder in this country and in England is a most striking one.—*The Spectator,* June 14, 1923.

THE SUICIDE RECORD OF 1923.

Combining the returns for eighty American cities for the two years 1922-1923, it appears that the suicide rate remains precisely the same, or 15.2 per 100,000 of population. The details for individual cities are given in the table accompanying this article.

It is shown by the tabulation that the suicide rate increased in 34 cities, while it decreased in 46. In a large measure the stationary condition of the suicide rate during the year reflects the nation-wide prosperity enjoyed by practically every element of the population. As has frequently been shown in previous articles, there is a fairly traceable correlation between business failures and changes in the rate of suicidal frequency, but the fact of business failures constitutes, of course, only one of many influences that determine the rate of self-destruction.

The experience during 1923 confirms observations made in previous years that the suicide rate is highest in the city of San Diego. In that city the rate, during 1923, reached the extraordinary figure of 50.5 per 100,000 of population, which is about one of the highest figures on record for a community of considerable size in this or any other country. No satisfactory explanation has been forthcoming why this should be so. San Diego is by common consent one of the most attractive localities for residence in the country. It is blessed with almost perpetual sunshine and there are no particularly unfavorable economic conditions that are a matter of record. The excessive mortality for San Diego approaches with a fair degree of closeness the high rates of suicidal frequency in the large cities of the Pacific Coast generally. Of the 13 cities with excessive suicide rates, or rates of 20 per 100,000 and over, 8 are located on the Pacific Coast. Or, in other words, the rates are all excessive in Denver, Los Angeles, Oakland, Sacramento, San Diego, San Francisco, Seattle and Spokane.

Lake Cities Have Low Rates.

The cities of the lake region show, almost throughout, rather low rates of suicidal frequency, and five principal cities, Chicago, Buffalo, Cleveland, Detroit and Milwaukee, all have rates below the average. Among the Mississippi River cities the highest rate prevailed in Louisville, followed by Cincinnati, while the rates for Memphis and New Orleans are below the average. The rates were decidedly low in the steel and coal producing centers, particularly McKeesport, Pittsburgh, Scranton and Pueblo. For Eastern cities, the rate for Boston was slightly above the average, while the rate for Manhattan and the Bronx was about the same, or, in other words, 16.4 and 16.3, respectively. The Philadelphia rate was 14.4, while the rate for Washington, D. C., was 13.3.

Combining the returns for 100 cities since 1900, excepting for the three last years, for which they represent a slightly lesser population, the table following is of exceptional interest.

According to this table the rate reached a maximum of 21.5 per 100,000 in 1908 and a minimum of 12.3 in 1920. The table would seem to justify the conclusion that the tendency to self-murder during recent years has approached a fairly stationary condition, but it must be kept in mind that with increasing intelligence there is a tendency to hide the facts of suicide successfully under the semblance of murder or accident. Until our system of coroners' inquests and medical examinations after death is considerably improved, the statistics of suicide, homicide and accidents must, in many cases, leave room for conjecture.

It is my own judgment, based upon a careful study of the subject for many years, that the number of suicides is somewhat larger than as indicated by the record, but the margin is not likely to be sufficient to invalidate general conclusions.

A further observation based upon an exhaustive study of countless individual cases would seem to lead to the conclusion that the tendency towards suicide among the well-to-do and more highly educated is more pronounced at the present time than in former years. It would not seem necessary to resurrect the details of lamentable instances familiar to all who are concerned with this subject, but the evil is unquestionably reaching every strata of society, while the evidence regarding causative factors is becoming more and more confused. Even the most sensational suicides attract but passing attention and a careful reading of many recent works on applied psychology, unsoundness of mind, and insanity, justifies the statement that the subject is hardly touched upon by those who should give it a large measure of professional consideration.

A few years ago the *British Medical Journal* carried on, for a considerable period of time, a discussion on suicide in borderland cases. It is cases of this kind that offer the most helpful field for prevention more or less in conformity to the useful activities of the Save-a-Life League. All indications of a suicidal tendency require to be taken most seriously and anyone who has threatened self-murder should never be entirely out of sight or left alone. The suicidal impulse is not subject to reasonable suggestion, but requires to be diverted unconsciously into other channels of thought and action. It is generally agreed that every melancholic type of person is potentially a suicide. The danger of self-destruction is considerably enhanced by a past record of suicide in the family. From a life insurance point of view a family record of suicide requires the utmost consideration. This phase of the subject was many years ago discussed by C. H. Ribot in his book on "Heredity," but his observations never have attracted the attention of which they are deserving.

Deaths from Suicide.

	1922.		1923.	
	Number of Deaths.	Death Rate per 100,000.	Number of Deaths.	Death Rate per 100,000.
Baltimore	121	15.6	92	11.6—
Bayonne	1	1.2	3	3.6+
Boston	108	14.1	127	16.4+
Bridgeport	24	15.6	16	10.1—
Brockton	7	10.2	10	14.3+

	1922.		1923.	
	Number of Deaths.	Death Rate per 100,000.	Number of Deaths.	Death Rate per 100,000.
Buffalo	62	1.7	58	10.8—
Camden	10	8.2	14	11.3+
Chelsea	7	15.3	1	2.1—
Chicago	398	14.1	386	13.5—
Cincinnati	59	14.4	82	19.8+
Cleveland	102	11.9	102	11.6—
Columbus	23	9.2	19	7.4—
Concord	3	13.4	4	17.8+
Dayton	25	15.5	12	7.3—
Denver	64	23.9	58	21.3—
Detroit	131	11.6	133	11.3—
Elizabeth	13	12.8	10	9.6—
Elmira	4	8.4	4	8.3—
Erie	13	13.0	8	7.8—
Fall River	9	7.4	6	5.0—
Grand Rapids	11	7.6	21	14.3+
Hartford	13	8.8	17	11.2+
Haverhill	13	23.1	9	15.6—
Holyoke	6	9.9	5	8.2—
Indianapolis	65	19.5	77	22.5+
Jacksonville	12	12.0	9	8.7—
Jersey City	32	10.5	33	10.7+
Lawrence	11	11.4	3	3.0—
Lincoln	9	15.6	5	8.5—
Los Angeles	195	30.3	221	33.0+
Louisville	50	21.1	57	23.9+
Lowell	10	8.7	8	6.9—
Lynn	12	11.8	8	7.8—
McKeesport	3	6.3	4	8.3+
Manchester	8	9.9	12	14.7+
Manhattan and Bronx	485	15.7	507	16.3+
Memphis	21	12.3	24	13.8+
Milwaukee	63	13.2	72	14.8+
Minneapolis	63	15.7	62	15.1—
Mobile	7	11.2	7	11.1—
Nashville	20	16.6	23	18.9+
Newark	54	12.5	56	12.8+
New Bedford	7	5.5	12	9.2+
New Haven	14	8.2	25	14.5+
New Orleans	47	11.8	46	11.4—
Newport	2	6.4	.....	.....
Newton	7	14.7	4	8.3—
Oakland	35	15.0	56	23.3+
Omaha	47	22.5	51	23.7+
Passaic	7	10.6	10	14.7+
Paterson	24	17.3	18	12.9—
Petersburg	7	21.4	2	6.0—
Philadelphia	285	15.1	277	14.4—
Pittsburgh	86	14.3	81	13.3—
Pittsfield	3	6.8	3	6.6—
Portland, Me.	12	16.7	6	8.2—
Providence	25	10.4	26	10.7+
Pueblo	6	14.1	5	11.7—
Quincy	6	16.8	6	16.7—
Reading	11	9.9	17	15.2+
Richmond	13	7.1	23	12.3+
Rochester	32	10.1	29	9.0—
Sacramento	27	37.9	23	31.3—
Salem	8	18.9	4	9.5—

	1922.		1923.	
	Number of Deaths.	Death Rate per 100,000.	Number of Deaths.	Death Rate per 100,000.
Salt Lake City	25	20.0	21	16.5—
San Diego	40	47.8	44	50.5+
San Francisco	161	30.4	181	33.6+
Savannah	10	11.4	8	8.9—
Scranton	9	6.4	8	5.7—
Seattle	91	27.1	75	21.8—
Somerville	5	5.1	8	8.1+
Springfield, Ill.	11	18.0	5	8.1—
Springfield, Mass.	16	11.4	13	9.0—
Spokane	23	21.9	21	20.0—
Syracuse	28	15.5	21	11.4—
St. Louis	159	20.0	174	21.6+
St. Paul	37	15.4	35	14.5—
Trenton	30	24.0	35	27.5+
Washington, D. C.	67	14.4	63	13.3—
Williamsport	2	5.4	6	15.9+
Totals	3,772	15.2	3,827	15.2

The Save-a-Life League.

In this connection a somewhat extended reference may probably be made to the work of the Save-a-Life League, under the direction of the Rev. H. M. Warren, 888 Seventh avenue, New York City. This organization came into existence in 1916, and has dealt with more than 10,000 cases of would-be suicides, of whom a fair number have been directed into channels of productive energy and useful living. During 1923 the League had 4,380 visitors, of whom 912 were would-be suicides. I have made myself familiar with a large number of these cases and the method of procedure followed, and I am absolutely convinced that in a general way the League is markedly successful. It operates under the serious disadvantage of very restricted funds, having annual expenditures of only about $7,000, of which about $2,500 is for administrative expenses. It needs substantial financial support; for, in many cases, a small pecuniary aid may be imperatively required to prevent impending cases of self-murder. I am acquainted with quite a number of would-be suicides who have been guided rightly through the League and, to my personal knowledge, in some of these cases the element of insurance was involved, and occasionally represented considerable amounts. There can be no question that life insurance protection of the family frequently gives the assurance to the would-be suicide that his death may be an advantage to the family rather than a loss. Especially is this the case in chronic invalids, including men and women suffering from cancer, who seek relief from their terrible affliction in self-inflicted death. The Metropolitan Life Insurance Company, during 1923, paid out $1,286,538 on account of suicide claims, against $537,777 paid in 1920. In four years the company had paid out over three and one-half million dollars, suggestive of the pecuniary interests which life insurance companies have in the work of the Save-a-Life League. The industrial companies particularly could not do better than to extend a fair measure of financial aid to the Save-a-Life League, since the victims of suicide through-

out the country represent to a large extent the wage-earning element more or less insured on the industrial plan.

The victims of suicide include also a large number of people socially prominent, educated and wealthy. Among those considered by the Rev. Mr. Warren during 1923, there were 62 physicians, 48 lawyers and judges, 14 ministers, 32 college students, 64 bankers, 72 brokers, 43 actors, 26 editors, 32 club men, 50 society women and over 100 wealthy men and women, some being ranked as millionaires, aside from 110 presidents and owners of large business concerns. Many of the observations of Dr. Warren in his annual report are deserving of thoughtful consideration. Others of a statistical nature require to be considered with extreme caution, since his conclusions are almost entirely based upon newspaper reports of individual suicides which include many duplications.

Suicides in American Cities, 1900-1923.

Year.	No. of Cities.	Population.	Suicides.	Rate per 100,000 Population
1900	100	16,822,918	2,590	15.4
1901	100	17,378,867	2,703	15.6
1902	100	17,934,812	2,988	16.7
1903	100	18,490,757	3,335	18.0
1904	100	19,645,700	3,560	18.7
1905	100	19,602,647	3,560	18.2
1906	100	20,158,392	3,394	16.8
1907	100	20,714,536	3,886	18.8
1908	100	21,270,481	4,564	21.5
1909	100	21,826,426	4,447	29.4
1910	100	22,383,297	4,377	19.6
1911	100	22,904,669	4,674	20.4
1912	100	23,417,106	4,554	19.4
1913	100	23,948,530	4,710	19.7
1914	100	24,471,925	5,106	20.9
1915	100	24,994,329	5,209	20.8
1916	100	25,516,735	4,592	18.0
1917	100	26,039,139	4,358	16.7
1918	100	26,561,545	3,870	14.6
1919	100	27,083,949	3,875	14.3
1920	100	27,605,966	3,399	12.3
1921	95	27,677,955	4,322	15.7
1922	80	24,766,413	3,772	15.2
1923	80	25,210,996	3,827	15.2

Number of Morbid Children Increasing.

Thus, for illustration, when he states that during the past five years there have been about 4,000 children between the ages of 5 and 18 on the suicide list, mostly attempts at suicide, he implies that child suicide in this country is a serious phenomenon. Unquestionably the number of morbid children is increasing. Our processes of education, our changed condition of home life, our confused environment all tend towards a high rate of self-destruction, but in the registration States of the United States, including about 80 per cent of the population, and for the three years 1920, 1921 and 1922, there occurred one death from suicide among children, ages 5 to 9; 121 deaths from suicide at ages 10 to 14, and 962 deaths from suicide at ages 15 to 19. It is only natural that

suicidal attempts on the part of children should be less frequently successful than on the part of adults on account of the latter's familiarity with the method pursued, but there are no reasons for believing that the actual number of child suicides in this country, nor the tendency towards self-destruction constitutes, at present, a seriously alarming symptom of social disorder.

Indifference to Human Life.

Another problem involving both murder and self-murder is the apparent increase on the part of those contemplating self-murder to first end the lives of some others before ending their own. The cruelty and callousness displayed in some of these cases are revolting. There can be no question but that there is a decided tendency towards a growing indifference to human life as well as to human suffering. The church has lost enormously in its influence on character, while little is done in the schools to emphasize the higher possibilities of ethical thought. Both suicide and murder are conclusive evidences of a fundamental weakness in our modern civilization which demands the attention of all who are qualified to give it. Annually we have probably from 12,000 to 15,000 suicides, 10,000 murders and 80,000 or more accidents of all kinds, of which a considerable number remain ill-defined or of doubtful determination. The annual loss of life in this country from these three causes is, therefore, not less than 100,000, or approximately the same as the annual mortality from cancer or pulmonary tuberculosis. While preventive agencies are at work to reduce pulmonary tuberculosis, and, while control measures are being advocated with regard to cancer, practically nothing of value is being done with regard to murder and self-murder. The subject is certainly one of special and direct pecuniary interest to life insurance companies, who, on the one hand, could support such agencies as the Save-a-Life League for the prevention of suicide, and on the other, give encouragement to such efforts as those of the Bar Association, or others, to bring about prohibition or restriction in the sales of dangerous weapons and the reckless sale of poisons.

In conclusion, attention may be directed to a few international suicide statistics of comparatively recent date. The suicide rate of Italy is a trifle less than 9 per 100,000 of population; the rate of Finland during 1918 was 12.5; of Japan about 17 per 100,000; of Saxony, which has always had near to the highest rate in Europe, about 35; of Prussia about 17; of Bavaria about 14; of Holland about 7; of Ireland, which has always had one of the lowest rates on record, about 2.5; of Hawaii about 22; of New Zealand about 10; of England and Wales about 9. For the registration States of the United States for 1922, the rate for males was 18.4 and for females 6.0 per 100,000 of population. As conservatively estimated, therefore, for the year 1923, the probable number of suicides annually is not much less than, if not more than, 12,000.—*The Spectator,* July 17, 1924.

SUICIDES OF PRISONERS.

To the Editor of *The Herald*:

The suicide of a Maine prisoner accused of murder just previous to his trial is one of a number of recent occurrences which should certainly attract the attention of the authorities. An atrocious murderer in Oakland, Cal., likewise committed suicide just previous to his trial.

There is obviously gross neglect on the part of the responsible authorities to safeguard the interests of the State. Murderers and other offenders on the eve of trial have frequently committed suicide, but the lessons of such experiences seem not to have been taken to heart. While it may relieve the State of the expense of a costly trial, the ends of justice are not met. Criminals under indictment require to be carefully watched and no means should be in their possession for ending their own existence. In the Maine case the question arises how the prisoner came into possession of a safety razor blade.

In the light of a long experience with cases of this kind, I am absolutely satisfied that the suicidal impulse is nowhere stronger than among persons anticipating a trial the outcome of which is a foregone conclusion. There should be a thorough inquiry into the facts of such cases and the responsibility for their occurrence should be placed where it belongs.

FREDERICK L. HOFFMAN.

Wellesley Hills, September 15.

—*The Boston Herald,* September 18, 1925.

THE SUICIDE RECORD OF 1924.

Since May, 1893, when I published my first article on suicides under "Suicides and Modern Civilization," in the *Arena,* I have tried to keep the subject of suicides annually before the public if but for the purpose of emphasizing an evil of considerable extent which strikes deeply into the foundations of what we are pleased to call a civilized life. No matter what we may think about the question, suicide always implies a disastrous failure to adapt the human individual successfully to his complex environment. The crest of the suicide rate in this country was reached in 1908, when the rate for American cities reached 21.5 per 100,000 of population. It declined slightly after that, but during recent years the rate has been about what it is at the present time or a little over 15 per 100,000. The lowest rate was reached in 1920 when it fell to 12.3. It seems to admit of no serious controversy that, to a measurable degree, the suicide rate is affected by business conditions and that it is a rough indication of our national prosperity, although countless other influences and conditions determine its rise and fall. Suicides, like murder cases, are becoming more involved and often difficult of precise determination. Suicides occur in which the evidence is so completely confused that there remains no alternative but to place them among the so-called "accidents" which may successfully hide the fact of suicide or murder, as the case may be.

In the registration area suicides have decreased from a rate of 15.4 per 100,000 in 1910 to 11.4 in 1920. There are few suicides under 15 years of age, numbering 24 between 5 and 14 years in 1920 and 30 in 1910. At ages 15 to 44 the rate was 11.9 in 1920 against 16.4 in 1910. The rate is higher for males than for females, or respectively for 1920 it was 16.3 at all ages for men and 6.3 at all ages for women. These rates, however, apply only in the registration States of 1910. If the rate is broken up for 1920 it appears that suicides by poison for both sexes were at the rate of 1.7 per 100,000; suicides by asphyxia at rate of 1.3; by strangling 1.2; by drowning 0.8 and by fire-arms 3.6. Fire-arms, in other words, in suicides, furnish the same easy means of life destruction as is the case in murders. All the arguments which are advanced against the unrestricted sale of fire-arms, especially through mail-order houses, apply to suicides as well as murders. Those who are familiar with the psychology of suggestion cannot but feel a sense of guilt on the part of those who leave fire-arms in the home to be used as opportunity may suggest. In a recent case in a suburban town near Boston a girl of fifteen killed herself with her father's revolver. There was no need of the weapon being in the home at all, any more than there is for most of the fire-arms in the possession of others than officers of the law.

Table I will show the suicides in 100 American cities between 1900 and 1924, except for the last four years for which the record at the present time is not quite as complete. It is shown that the rate increased rapidly from 15.4 in 1900 to 21.5 in 1908 and after that decreased slowly to 20.8 in 1915 and since then the rate has gradually fallen to a

minimum of 12.3 during 1919, rising since then and slightly falling during recent years until at the present time it is 15.3. Since the suicide rate of cities is higher than for rural areas, it is probably safe to assume that the total number of known suicides in this country at the present time is between 12,000 and 15,000, but most of the suicides are of the age period 15 to 45, at which life potentially has its highest economic value.

Table I. Suicides in American Cities, 1900-1924.

Year	No. of Cities	Population	Suicides	Rate Per 100,000 Population
1900	100	16,822,918	2,590	15.4
1901	100	17,378,867	2,703	15.6
1902	100	17,934,812	2,988	16.7
1903	100	18,490,757	3,335	18.0
1904	100	19,045,700	3,560	18.7
1905	100	19,602,647	3,560	18.2
1906	100	20,158,392	3,394	16.8
1907	100	20,714,536	3,886	18.8
1908	100	21,270,481	4,564	21.5
1909	100	21,826,426	4,447	20.4
1910	100	22,383,297	4,377	19.6
1911	100	22,904,660	4,674	20.4
1912	100	23,417,106	4,554	19.4
1913	100	23,948,530	4,710	19.7
1914	100	24,471,925	5,106	20.9
1915	100	24,994,329	5,209	20.8
1916	100	25,516,735	4,592	18.0
1917	100	26,039,139	4,358	16.7
1918	100	26,561,545	3,870	14.6
1919	100	27,083,949	3,875	14.3
1920	100	27,605,966	3,399	12.3
1921	95	27,677,955	4,332	15.7
1922	80	24,766,413	3,772	15.2
1923	80	25,210,996	3,827	15.2
1924	80	28,151,402	4,305	15.3

Table II gives the details of population and suicides for the year 1924 for 80 cities. It emphasizes the excessive rate of certain cities, particularly as has been the case in former years of San Diego, California, which leads all cities with a rate of 45.2 per 100,000. This is followed by San Francisco with a rate of 37.8; of Los Angeles with a rate of 32.8 and of Oakland, California, with a rate of 29.9. Among other Pacific Coast cities with a high rate is Seattle, Washington, of 28.0, while the rate for Spokane, Washington, is 22.8. Pacific Coast cities for many years have shown a decidedly higher rate than cities of the Middle West, the South or the Atlantic Seaboard.

Cities with low rates of suicide during the year 1924 were Elizabeth with rate of 4.7; for Bayonne, N. J., 4.6 and Newton, Mass., 6.1. There were apparently no deaths from suicide in Petersburg, Va. Among the largest cities of the country, the Borough of Manhattan has a rate of 15.6; the Borough of Brooklyn of 10.8; the city of Chicago of 15.3; the city of Philadelphia of 15.2, and the city of Washington, D. C., of 17.3. For Boston, Mass., the rate was 13.9, while for Baltimore, Md., it was 11.8 and for New Orleans 13.9.

Table II. Suicides in 80 American Cities—1924.

	Population	Deaths	Death Rate Per 100,000
Atlanta	222,068	42	18.9
Baltimore	813,365	96	11.8
Bayonne	86,596	4	4.6
Boston	784,378	109	13.9
Bridgeport	163,013	15	9.2
Brockton	70,695	5	7.1
Brooklyn	2,197,298	237	10.8
Buffalo	545,088	60	11.0
Cambridge	112,047	8	7.1
Camden	126,349	16	12.7
Chicago	2,900,484	443	15.3
Cincinnati	418,671	66	15.8
Cleveland	905,457	119	13.1
Columbus	262,748	33	12.6
Concord	22,496	6	26.7
Dayton	169,160	16	9.5
Denver	276,758	60	21.7
Detroit	1,233,692	151	12.2
Elizabeth	105,992	5	4.7
Erie	105,635	13	11.4
Fall River	121,209	9	7.4
Grand Rapids	149,244	17	11.4
Hartford	155,892	15	9.6
Haverhill	58,371	16	27.4
Holyoke	61,472	4	6.5
Indianapolis	349,691	57	16.3
Jacksonville	107,178	13	12.1
Jersey City	312,202	31	9.9
Lawrence	98,342	9	9.2
Lincoln	59,938	3	5.0
Los Angeles	695,383	228	32.8
Louisville	239,675	37	15.4
Lowell	115,814	8	6.9
McKeesport	48,730	6	12.3
Malden	51,358	3	5.8
Manchester	82,299	12	14.6
Manhattan and Bronx	3,139,585	489	15.6
Milwaukee	495,789	72	14.5
Minneapolis	417,505	74	17.7
Mobile	64,206	8	12.5
Nashville	122,320	22	18.0
Newark	445,585	50	11.2
New Bedford	132,719	11	8.3
New Haven	175,866	14	8.0
New Orleans	409,566	57	13.9
Newport	31,875	....	.....
Newton	48,948	3	6.1
Oakland	247,235	74	29.9
Orange	34,924	4	11.5
Passaic	69,332	7	10.1
Paterson	140,757	24	17.1
Petersburg	34,140	....	.....
Philadelphia	1,949,870	297	15.2
Pittsburgh	613,708	70	11.4
Pittsfield	46,236	4	8.7
Portland, Oregon	282,804	74	26.2
Providence	244,205	31	12.7
Pueblo	42,454	6	14.1
Quincy	35,956	6	16.7
Reading	113,279	29	25.6
Rochester	331,403	39	11.8

	Population	Deaths	Death Rate Per 100,000
St. Louis	815,006	168	20.6
St. Paul	244,203	34	13.9
Salem	42,106	3	7.1
Salt Lake City	130,018	11	8.5
San Diego	90,746	41	45.2
San Francisco	548,044	207	37.8
Savannah	91,577	9	9.8
Scranton	141,311	29	20.5
Seattle	353,019	99	28.0
Somerville	100,429	7	7.0
Springfield, Ill.	62,793	13	20.7
Springfield, Mass	148,202	14	9.4
Spokane	105,337	24	22.8
Syracuse	187,669	30	16.0
Tacoma	103,517	18	17.4
Toledo	277,165	37	13.3
Trenton	129,711	26	20.0
Washington, D. C.	486,184	84	17.3
Worcester	195,310	15	7.7
Totals	28,151,402	4,305	15.3

Table III shows the comparative suicide statistics for 80 cities for 1923 and 1924. According to the table there was an increase in the ratio of 71 of the cities, while the average decline for all the cities was equivalent to 0.5 per 100,000. The question is often asked in connection with suicide statistics as to how the United States compares with foreign countries. It is difficult to secure statistics corresponding precisely to the present investigation without a very considerable delay which the facts in the case would hardly justify. In some of the tables following, however, I give such statistics as are conveniently available for certain

Table III. Deaths from Suicide.

	1923		1924	
	Number of Deaths	Death Rate Per 100,000	Number of Deaths	Death Rate Per 100,000
Baltimore	92	11.6	96	11.8
Bayonne	3	3.6	4	4.6
Boston	127	16.4	109	13.9
Bridgeport	16	10.1	15	9.2
Brockton	10	14.3	5	7.1
Buffalo	58	10.8	60	11.0
Camden	14	11.3	16	12.7
Chicago	386	13.5	443	15.3
Cincinnati	82	19.8	66	15.8
Cleveland	102	11.6	119	13.1
Columbus	19	7.4	33	12.6
Concord	4	17.8	6	26.7
Dayton	12	7.3	16	9.5
Denver	58	21.3	60	21.7
Detroit	133	11.3	151	12.2
Elizabeth	10	9.6	5	4.7
Erie	8	7.8	12	11.4
Fall River	6	5.0	9	7.4
Grand Rapids	21	14.3	17	11.4
Hartford	17	11.2	15	9.6
Haverhill	9	15.6	16	27.4
Holyoke	5	8.2	4	6.5

	1923		1924	
	Number of Deaths	Death Rate Per 100,000	Number of Deaths	Death Rate Per 100,000
Indianapolis	77	22.5	57	16.3
Jacksonville	9	8.7	13	12.1
Jersey City	33	10.7	31	9.9
Lawrence	3	3.0	9	9.2
Lincoln	5	8.5	3	5.0
Los Angeles	221	33.0	228	32.8
Louisville	57	23.9	37	15.4
Lowell	8	6.9	8	6.9
McKeesport	4	8.3	6	12.3
Manchester	12	14.7	12	14.6
Manhattan and Bronx	507	16.3	489	15.6
Milwaukee	72	14.8	72	14.5
Minneapolis	62	15.1	74	17.7
Mobile	7	11.1	8	12.5
Nashville	23	18.9	22	18.0
Newark	56	12.8	50	11.2
New Bedford	12	9.2	11	8.3
New Haven	25	14.5	14	8.0
New Orleans	46	11.4	57	13.9
Newport	.....	.....	.....	.....
Newton	4	8.3	3	6.1
Oakland	56	23.3	74	29.9
Passaic	10	14.7	7	10.1
Paterson	18	12.9	24	17.1
Petersburg	2	6.0	.....	.....
Philadelphia	277	14.4	297	15.2
Pittsburgh	81	13.3	70	11.4
Pittsfield	3	6.6	4	8.7
Providence	26	10.7	31	12.7
Pueblo	5	11.7	6	14.1
Quincy	6	16.7	6	16.7
Reading	17	15.2	29	25.6
Rochester	29	9.0	39	11.8
Salem	4	9.5	3	7.1
Salt Lake City	21	16.5	11	8.5
San Diego	44	50.5	41	45.2
San Francisco	181	33.6	207	37.8
Savannah	8	8.9	9	9.8
Scranton	8	5.7	29	20.5
Seattle	75	21.8	99	28.0
Somerville	8	8.1	7	7.0
Springfield, Ill.	5	8.1	13	20.7
Springfield, Mass.	13	9.0	14	9.4
Spokane	21	20.0	24	22.8
Syracuse	21	11.4	30	16.0
St. Louis	174	21.6	168	20.6
St. Paul	35	14.5	34	13.9
Trenton	35	27.5	26	20.0
Washington, D. C.	63	13.3	84	17.3
Total	3,681	15.2	3,867	15.7

foreign countries as a matter of interest. Table IV will show the suicide statistics of the United Kingdom, Holland and certain Scandinavian countries; unfortunately, in many cases, the returns are not further down to date than 1924. In 1920 the U. S. Census gave the suicide rate for the registration States as 10.3 for the purpose of comparison. The table indicates about the same rate for England and Wales but a lower

rate for Scotland and a very much lower rate for Ireland. Our American rate is also somewhat higher than the rate for Holland but probably somewhat less than for Sweden, but higher than the rate for Norway.

Table IV. Suicides in the United Kingdom, Holland and Scandinavia. Rate per 100,000 of Population.

Year	England and Wales	Scotland	Ireland		Holland	Sweden	Norway	Finland
1910	10.0	....	3.6		6.2	17.7	....	....
1911	9.9	....	3.4		6.2	17.6	5.4	7.1
1912	9.9	....	3.8		6.0	18.3	6.1	7.3
1913	9.6	6.0	3.6		6.7	17.8	6.1	9.1
1914	10.1	5.0	2.7		5.9	15.8	4.9	8.0
1915	8.4	5.0	3.1		6.0	15.3	5.5	9.9
1916	8.3	5.0	2.5		5.6	13.1	4.5	5.0
1917	7.4	4.0	2.3		6.1	10.1	4.2	5.9
1918	8.3	4.0	2.5		7.1	10.0	3.2	10.5
1919	9.3	5.0	2.9		7.3	13.6	5.2	5.9
1920	9.1	5.0	2.1		7.1	14.7	4.8	7.9
			North	Free State				
1921	9.9	6.0	4.7	....	6.3	15.3	5.7	11.3
1922	10.0	6.0	4.5	....	6.3	14.4	5.6	10.5
1923	10.3	7.0	4.0	2.5	6.0	14.2	6.1	11.4
1924	9.6	7.0	5.4	....	6.2	14.5	5.8	13.8
1925	10.5	8.0	6.0	....	6.2	.....	....	15.1
1926	11.4	9.0	....	....	6.1	.....	....	.....
1927	.....	....	....	....	7.2	.....	....	.....

Table V gives certain statistics for Australia, New Zealand, and South Africa. For Australia and New Zealand the rates are higher than for this country, but for South Africa they are considerably below ours.

Table V. Suicides in Australia, New Zealand and South Africa. Rates per 100,000 of Population.

Year	Australia	New Zealand	South Africa
1910	.....	12.1	.....
1911	12.1	11.1	.....
1912	13.6	11.8	11.2
1913	13.5	13.8	9.9
1914	13.1	12.6	10.3
1915	13.3	10.3	9.6
1916	11.8	13.4	7.6
1917	10.2	11.3	7.0
1918	10.0	10.2	7.0
1919	10.6	12.2	.....
1920	12.0	11.2	.....
1921	11.4	12.8	9.3
1922	9.6	13.1	10.5
1923	10.5	10.4	10.8
1924	11.0	13.2	11.2
1925	12.0	13.0	11.0
1926	12.0	11.3	.....

Table VI gives the corresponding statistics for France, Paris, Brussels, Italy and Spain. The rates are decidedly higher for France and probably for all Belgium, while they are considerably lower for Italy and Spain.

Table VI. Suicides in France, Paris, Brussels, Italy and Spain. Rates per 100,000 of Population.

Year	France	Paris	Brussels	Italy	Spain
1910	.....	.....	.....	8.4	.....
1911	24.3	25.6	28.8	7.9	4.5
1912	25.5	25.7	25.6	8.5	4.6
1913	26.1	26.0	29.4	8.8	5.5
1914	25.4	22.1	22.2	8.9	5.5
1915	19.4	11.1	18.8	8.5	6.1
1916	18.9	11.5	14.6	6.9	4.4
1917	18.1	11.2	12.5	6.9	6.0
1918	18.8	12.3	24.3	7.5	6.7
1919	24.4	19.6	28.9	7.3	4.0
1920	17.5	19.4	24.6	7.3	4.1
1921	19.6	19.9	.....	7.8	5.2
1922	.....	19.5	.....	8.1	5.1
1923	.....	17.4	.....	8.5	5.7
1924	.....	18.2	.....	9.6	6.2
1925	19.0	19.1	.....	9.2	3.4
1926	19.0	18.8	.....	.....	3.8

Table VII gives the rate for certain German cities which are considerably in excess of the average for this country but conforming more or

Table VII. Suicide Rates in Certain German Cities. Rates per 100,000 of Population.

Year	Berlin	Hamburg	Leipsig	Munich	Cologne
1911	35.0	34.3	37.6	21.9	20.3
1912	38.0	36.4	35.0	25.5	22.2
1913	39.0	39.1	41.9	29.6	21.9
1914	38.3	34.5	33.9	23.0	18.7
1915	31.4	24.1	31.2	15.9	15.8
1916	31.9	25.1	37.8	18.7	14.9
1917	41.1	27.3	35.8	17.5	10.0
1918	48.5	30.7	28.8	19.8	.....
1919	50.2	32.3	36.7	23.4	6.7
1920	24.6	37.9	39.1	24.6	8.6
1921	34.8	35.1	25.4	24.6	10.3
1922	38.7	37.3	34.5	20.1	15.9
1923	37.5	37.1	32.3	23.0	11.6
1924	38.7	42.2	37.0	28.7	17.1
1925	39.3	42.2	39.0	31.4	18.7
1926	43.3	44.0	46.7	26.4	24.4

less to the high rates for our cities on the Pacific Coast. Table VIII gives the corresponding data for three Canadian provinces and Newfoundland. The suicide rates of British Columbia conform more or less to the suicide rate for our Pacific Coast, while those of Ontario are lower than those for Quebec and Newfoundland. Finally, there is

Table VIII. Suicides in Certain Canadian Provinces and Newfoundland. Rates per 100,000 of Population.

Year	Ontario	British Columbia	Quebec	Newfoundland
1910	.....	.....	.....	.....
1911	5.5	20.9	1.4	1.2
1912	5.7	14.7	1.7	1.2
1913	6.4	20.4	2.7	0.0
1914	5.5	20.4	2.1	0.8
1915	5.3	12.0	2.4	2.4
1916	5.0	11.2	1.6	2.0
1917	4.8	9.2	2.1	0.4
1918	3.4	4.7	1.7	1.2
1919	4.5	14.5	1.9	1.9
1920	5.0	13.1	2.8	1.1

Year	Ontario	British Columbia	Quebec	Newfoundland
1921	5.0	13.9	3.0	1.9
1922	8.0	11.0	3.0	1.5
1923	7.4	17.0	2.0	-----
1924	8.0	14.0	2.0	-----
1925	9.0	16.0	2.0	-----
1926	9.0	18.0	3.0	-----
1927	10.0	18.0	3.0	-----

included an analysis of the age distribution of 48,440 suicides in the United States registration area during the period 1916-1920 given in Table IX.

Table IX. Age Distribution of 48,440 Suicides in the United States Registration Area—1916-20.

Age	Number	Age	Number
0–10	4	60–69	5,990
10–19	1,792	70–79	2,684
20–29	8,145	80–89	742
30–39	10,343	90–99	61
40–49	9,840	100+	1
50–59	8,662	Unclassified	176
Total to age 60	37,786	Total over age 60	9,654

The tabulations herewith cannot be fully discussed on the present occasion, but they will serve a useful purpose in connection with more extended studies of the suicide problem for which the facts in the case must urgently call.

It may be pointed out in this connection that the suicide rate for Japan is considerably in excess of the rates for this country, the latest rate available being for 1918, when it was 18.1 per 100,000 against 13.4 in 1899. The rate during more recent years has apparently been about the same.

In the light of more than thirty years' experience with the suicidal problem, the conviction is forced upon me that the recorded mortality understates the actual extent of a very serious social problem. Suicides are seemingly today more common among the well-to-do, the well-educated and the well-placed than in earlier years. This would seem to indicate a disintegration of social morality for which the present generation is primarily responsible. It is not feasible to enlarge upon matters of detail, but attention may be called to the suicide of a United States Senator last year who stood high in the councils of the nation. The outstanding fact of many individual cases is the indifference on the part of those who are familiar with indications of a mental breakdown typical of borderland cases of insanity and crime. Fortunately, our economic situation is so satisfactory and the outlook for the future so excellent that suicides due to economic depressions are at the present time comparatively few and far between. Finally, attention may be directed to the apparently increasing extent to which suicides commit murder at about the same time indicative of a state of mind and morals that may well challenge attention. It is my firm conviction that much might be done to prevent suicides in many cases if a more deliberate effort were made in this direction. Suicides also could be diminished if the present unrestricted sale of weapons and the reckless sale of poisons were brought more effectively under public control.

—*The Spectator,* July, 1925.

SUICIDE RECORD OF 1925.

The suicide rate during 1925 was slightly higher than during previous years, but not alarmingly so. The rate, however, reached the highest point with one exception since 1918, and it is now 0.2 per 100,000 in excess of the rate for 1900. The returns this year are limited to seventy-five cities with about 27,500,000 population, for which continuous records for twenty-six years are available. The rate for 1925 was 15.6 per 100,000, while in 1920 the rate was as low as 12.3, and in 1908 as high as 21.5. The question always arises in considering suicide rates whether the facts in the case are actually and completely recorded. As I have often had occasion to point out in connection with homicide, there is an increasing tendency to skillfully disguise the facts tending to give a distorted judgment as to whether in given cases the verdict should be one of accident, suicide or murder. Of interest in this connection is a recent case reported in the New York *Times*, a dispatch from Port Huron, Mich., dated April 28, and to the effect that "returning after an absence of four years to find that he had been officially recorded as dead, his former wife married to another man and the $10,000 life insurance he had carried used by his former wife to erect an apartment house bearing his name out of respect to his memory, Adelaid Lebert has started an investigation. Four years ago he disappeared after a quarrel with his wife. He was registered as missing and later on identified as suicide." Such cases are far from uncommon. Particularly suspicious are quite a number of cases where persons fall out of a window and it is absolutely impossible to ascertain whether they fell, were pushed or jumped with suicidal intent. Students of the suicide problem might to advantage give special attention to Niagara Falls, which has always had special attractions, and where many lives have come to an untimely end. No particular precautions seem to be employed by the local authorities to prevent such occurrences and no accurate figures are kept or are obtainable. If a complete statement of the facts were published it would make an illuminating contribution to the subject. But Niagara Falls evidently prefers to prevent the truth from being fully understood.

A careful reading of such cases has long since convinced me that the probable number of suicides in this country is higher than the number recorded. The record for 1900-1925 is given in the following table:

Suicides in American Cities—1900-1925.

Year.	No. of Cities.	Population.	Suicides.	Death rate per 100,000.
1900	100	16,822,918	2,590	15.4
1901	100	17,378,086	2,703	15.6
1902	100	17,934,812	2,988	16.7
1903	100	18,490,757	3,335	18.0
1904	100	19.045,700	3,560	18.7
1905	100	19,602,647	3,560	18.2
1906	100	20,158,392	3,394	16.8
1907	100	20,714,536	3,886	18.8

Year.	No. of Cities.	Population.	Suicides.	Death rate per 100,000.
1908	100	21,270,481	4,564	21.5
1909	100	21,826,426	4,447	20.4
1910	100	22,383,297	4,377	19.6
1911	100	22,904,660	4,674	20.4
1912	100	23,417,106	4,554	19.4
1913	100	23,948,530	4,710	19.7
1914	100	24,471,925	5,106	20.9
1915	100	23,994,329	5,209	20.8
1916	100	25,516,735	4,592	18.0
1917	100	26,039,139	4,358	16.7
1918	100	26,561,545	3,870	14.6
1919	100	27,083,949	3,875	14.3
1920	100	27,605,966	3,399	12.3
1921	95	27,677,955	4,332	15.7
1922	80	24,766,413	3,772	15.2
1923	80	25,210,996	3,827	15.2
1924	80	28,151,402	4,305	15.3
1925	75	27,404,111	4,282	15.6

Suicides in Seventy-five American Cities.

	1924			1925		
	Population	No. of Suicides	Rate per 100,000	Population	No. of Suicides	Rate per 100,000
Baltimore, Md.	813,365	96	11.8	796,296	96	12.1+
Bayonne, N. J.	86,596	4	4.6	88,767	2	2.3
Boston, Mass.	784,378	109	13.9	779,620	111	14.2+
Bridgeport, Conn.	163,013	15	9.2	154,240	21	13.6+
Brockton, Mass.	70,695	5	7.1	65,343	7	10.7+
Brooklyn, N. Y.	2,197,298	237	10.8	2,203,235	234	10.6
Buffalo, N. Y.	545,088	60	11.0	538,016	49	9.1
Camden, N. J.	126,349	16	12.7	128,642	12	9.3
Chicago, Ill.	2,900,484	443	15.3	2,995,239	430	14.4
Cincinnati, Ohio	418,671	66	15.8	409,333	74	18.1+
Cleveland, Ohio	905,457	119	13.1	936,486	138	14.7+
Columbus, Ohio	262,748	33	12.6	279,836	28	10.0
Dayton, Ohio	169,160	16	9.5	172,942	25	14.5+
Denver, Colo.	276,758	60	21.7	280,911	81	28.8+
Detroit, Mich.	1,233,692	151	12.2	1,242,044	157	12.6+
Elizabeth, N. J.	105,992	5	4.7	108,555	5	4.6
Erie, Pa.	105,635	12	11.4	118,657	13	11.0
Fall River, Mass.	121,209	9	7.4	128,993	11	8.5+
Grand Rapids, Mich.	149,244	17	11.4	153,698	17	11.1
Hartford, Conn.	155,892	15	9.6	160,197	12	7.5
Haverhill, Mass.	58,371	16	27.4	49,232	11	22.3
Holyoke, Mass.	61,472	4	6.5	60,335	1	1.7
Indianapolis, Ind.	349,691	57	16.3	358,819	63	17.6+
Jersey City, N. J.	312,202	31	9.9	315,280	26	8.2
Lawrence, Mass.	98,342	9	9.2	93,527	10	10.7+
Lincoln, Neb.	59,938	3	5.0	60,941	6	9.8+
Los Angeles, Calif.	695,383	228	32.8	730,827	261	35.7+
Lowell, Mass.	115,814	8	6.9	110,296	6	5.4
McKeesport, Pa.	48,730	6	12.3	49,097	8	16.3+
Malden, Mass.	51,358	3	5.8	51,789	4	7.7+
Manchester, Mass.	82,299	12	14.6	83,097	1	1.2
Manhattan and Bronx.	3,139,585	489	15.6	2,817,197	575	20.4+
Milwaukee, Wis.	495,789	72	14.5	509,192	81	15.9+
Minneapolis, Minn.	417,505	74	17.7	425,435	106	24.9+
Mobile, Ala.	64,206	8	12.5	65,955	6	9.1
Nashville, Tenn.	122,320	22	18.0	136,220	21	15.4

	1924			1925		
	Population	No. of Suicides	Rate per 100,000	Population	No. of Suicides	Rate per 100,000
Newark, N. J.	445,585	50	11.2	452,513	51	11.9+
New Bedford, Mass.	135,719	11	8.3	119,539	12	10.0+
New Haven, Conn.	175,866	14	8.0	178,927	16	8.9+
New Orleans, La.	409,566	57	13.9	414,493	65	15.7+
Newport, R. I.	31,875	....	.....	27,757	3	10.8+
Newton, Mass.	48,948	3	6.1	53,003	9	17.0+
Oakland, Calif.	247,235	74	29.9	253,700	68	26.8
Orange, N. J.	34,924	4	11.5	35,379	1	2.8
Passaic, N. J.	69,332	7	10.1	68,979	13	18.8+
Paterson, N. J.	140,757	24	17.1	141,695	17	12.0
Petersburg, Va.	34,140	....	.....	35,712	3	8.4+
Philadelphia, Pa.	1,949,870	297	15.2	1,979,364	247	12.5
Pittsburgh, Pa.	613,708	70	11.4	631,563	94	14.9+
Portland, Ore.	282,804	74	26.2	282,383	76	26.9
Providence, R. I.	244,205	31	12.7	267,918	29	1.8
Pueblo, Colo.	42,454	6	14.1	43,787	3	0.9
Quincy, Ill.	35,956	6	16.7	43,478	2	4.6
Reading, Pa.	113,279	29	25.6	112,707	16	14.2
Rochester, N. Y.	331,403	39	11.8	316,786	43	13.6+
St. Louis, Mo.	815,006	168	20.6	821,543	144	17.5
St. Paul, Minn.	244,203	34	13.9	246,001	29	11.8
Salem, Mass.	42,106	3	7.1	42,821	4	9.3+
Salt Lake City, Utah	130,018	11	8.5	130,948	24	18.3+
San Diego, Calif.	90,746	41	45.2	106,047	42	39.6
San Francisco, Calif.	548,044	207	37.8	557,530	176	31.6
Savannah, Ga.	91,577	9	9.8	93,134	6	6.4
Scranton, Pa.	141,311	29	20.5	142,266	7	4.9
Seattle, Wash.	353,019	99	28.0	337,410	92	27.3
Somerville, Mass.	100,429	7	7.0	99,032	5	5.0
Spokane, Wash.	105,337	24	22.8	108,897	27	24.8+
Springfield, Ill.	62,793	13	20.7	63,923	9	14.1
Springfield, Mass.	148,202	14	9.4	142,065	19	13.4+
Syracuse, N. Y.	187,669	30	16.0	182,003	38	20.9+
Tacoma, Wash.	103,517	18	17.4	104,455	30	28.7+
Toledo, Ohio	277,165	37	13.3	287,380	32	11.1
Trenton, N. J.	129,711	26	20.0	132,020	26	19.7
Washington, D. C.	486,184	84	17.3	497,906	71	14.3
Worcester, Mass.	195,310	15	7.7	190,759	21	11.0+
	27,401,702	4,195	15.3	27,404,111	4,282	15.6

I am able to add to the foregoing table another return for fifty-two American cities, limited, however, for the year 1925. For these cities, which are mostly all of a smaller size, the average death rate was only 13.4, which is somewhat less than the average for seventy-five cities, given at 15.6. The highest rate in this table is for Sacramento, or 54.0. which is considerably higher than the rate for San Diego, given as 39.6. Sacramento, this year, leads all of the 127 cities for which the information is available. For the larger cities of this country the suicide rates for 1925 are as follows: New York City (Manhattan and Bronx), 20.4; Chicago, 14.4; Brooklyn (Borough), 10.6; Philadelphia, 12.5; St. Louis, 17.5; Baltimore, 12.1, and Boston, 14.2. For most of the cities, however, the suicide rates for 1925 are below the average for American cities as a whole.

Suicides in 52 American Cities—1925.

	Population.	Deaths.	Death rate per 100,000.
Akron, Ohio	243,040	31	12.8
Albany, N. Y.	117,820	12	10.2
Altoona, Pa.	66,148	2	3.0
Atlantic City, N. J.	53,287	13	24.4
Berkeley, Calif.	66,209	9	13.6
Binghamton, N. Y.	71,915	10	13.9
Birmingham, Ala.	205,670	28	13.6
Canton, Ohio	106,260	12	11.3
Cedar Rapids, Iowa	52,791	10	18.9
Chelsea, Mass.	47,247	2	4.2
Covington, Ky.	58,309	8	13.7
Dallas, Texas	194,450	36	18.5
Des Moines, Iowa	149,183	25	16.8
El Paso, Texas	104,929	18	17.2
Fort Wayne, Ind.	97,846	18	18.4
Fort Worth, Texas	154,847	28	18.1
Gloucester, Mass.	23,375	7	29.9
Hamtrack, Mich.	81,731	2	2.4
Harrisburg, Pa.	83,422	11	13.2
Highland Park, Mich.	72,289	10	13.8
Houston, Texas	164,752	31	18.8
Jackson, Mich.	57,972	9	15.5
Kalamazoo, Mich.	53,613	7	13.1
Kansas City, Kansas	116,053	16	13.8
Knoxville, Tenn.	95,464	7	7.3
Lancaster, Pa.	56,505	3	5.3
Lansing, Mich.	70,753	4	5.7
Long Beach, Calif.	91,182	17	18.6
Lynn, Mass.	103,081	12	11.6
Macon, Ga.	58,237	7	12.0
Memphis, Tenn.	174,533	27	15.5
New Britain, Conn.	68,039	1	1.5
Niagara Falls, N. Y.	57,033	9	15.8
Norfolk, Va.	227,437	14	6.2
Pasadena, Calif.	56,732	11	19.4
Portland, Me.	75,333	15	19.9
Portsmouth, Va.	59,029	3	5.1
Racine, Wis.	67,707	4	5.9
Richmond, Va.	186,403	25	13.4
Roanoke, Va.	58,208	6	10.3
Sacramento, Calif.	72,260	39	54.0
San Antonio, Texas	198,069	22	11.1
Schenectady, N. Y.	92,786	6	6.5
Springfield, Ohio	68,725	7	10.2
Tampa, Fla.	94,743	14	14.8
Terre Haute, Ind.	71,071	14	19.7
Topeka, Kan.	55,411	4	7.2
Troy, N. Y.	72,223	17	23.5
Tulsa, Okla.	121,604	6	4.9
Utica, N. Y.	101,604	12	11.8
Wichita, Kansas	88,367	12	13.6
Yonkers, N. Y.	113,647	10	8.8
	5,099,380	683	13.4

The suicide problem is one which has attracted many students on sociology and economics, but no one has ever essayed more skillfully on the subject than Prof. Morselli, an Italian scientist and anthropologist, whose book was published more than thirty years ago. All sorts of

efforts have been made to correlate suicide to season or weather conditions, environment or social conditions, poverty or riches, education or illiteracy, occupation, mental condition, etc. While many conclusions have been advanced, none seemingly have stood the test of repeated experience. Broadly speaking, however, it is safe to say that the business conditions of the country have a fairly definite relation to the suicide rate, in that when business failures are excessive, the suicide rate generally increases. A prosperous condition of the country as a whole would, therefore, tend to obscure the suicide rate to a small degree.

There are those also who attribute suicide to poverty and who are of the opinion that suicide and unemployment largely coincide. This, however, cannot be demonstrated by trustworthy statistics on a large scale. In individual cases, unquestionably, poverty and unemployment are directly contributory causes, but such facts are frequently very obscure in the general mass of suicide statistics, which represent on the whole a fairly well-to-do element of the population. It is brought forth repeatedly, for illustration, that great wealth does not preclude a suicidal tendency. Mention need only be made of a wealthy woolen manufacturer of extraordinary executive ability, vast power and influence who last year ended his life in a fit of despondency. Nor is high political influence a protection, as illustrated by the suicide of the late Senator Brandegee of Connecticut.

There is another suggestive phase in the suicide problem which has received inadequate consideration. There seems to be a slight increasing tendency towards so-called suicide pacts, as illustrated by a recent case reported from Oskaloosa, Iowa. In this case the president of a local college who was arrested by Federal officers for running a so-called "diploma mill" was found dead with his wife and son in the gas-filled basement of his home. A suicide-pact was revealed by a letter left behind by the deceased.

There was a similar case reported from London during the present year in which a young man and young woman agreed to commit suicide on an alleged pact which was later considered by the courts. Such cases are by no means uncommon. That very trifling causes are often directly responsible for suicide is brought out in a case reported from Chicago under date of March 3, in which a little girl, age 13, shot herself with her father's revolver after having been scolded for spending ten cents for candy while on a shopping tour for her mother.

As I have often had occasion to point out, business failures are apt to affect the general suicide rate only when they assume pronounced proportions. At the present time the country is exceedingly prosperous and business failures during 1925 were relatively low in proportion to the total number of business concerns affected. In the table following I show the percentage of business concerns failing during 1917-1925, together with the suicide rate for American cities for the corresponding years:

Business Failures and Suicides—1917-1925.

Year	Percentage of Business Concerns Failing.	Suicides per 100,000.
1917	0.064	16.7
1918	0.045	14.6
1919	0.028	14.3
1920	0.040	12.3
1921	0.085	15.7
1922	0.096	15.2
1923	0.077	15.2
1924	0.080	15.3
1925	0.078	15.6

This table would indicate that the lowest suicide rates prevailed during the period when the rate of failures of business concerns was also lowest. While there is, therefore, no exact correspondence, it may be said that suicides following business failures form, after all, but a small proportion of the vast aggregate which takes place during the course of the year.

There is, however, a phase of business failures which is not generally understood. According to the *Journal of Commerce* of April 24, 1926, "a leading authority on bankruptcy laws, a man who has had over twenty-five years of practical experience in this field, has publicly stated that at least 90 per cent of all the cases that come under his observation have involved some fraud or attempt at fraud." And, he adds, "That fraudulent bankruptcies in large communities have grown to scandalous proportions." Since many suicides represent persons who violate the law with the possibility of escaping arrest the foregoing observation is quite pertinent to the general problem.

Suicide, in a large majority of cases, involves some form of social delinquency the judicial consequences of which are evaded by self-inflicted death. As long as our coroners' inquests and even our medical examinations are as superficial as they are, the facts in the case cannot become a matter of public record. There is, therefore, the utmost urgency that suicides in the public mind should assume the status of quasi crimes in that it may safely be asserted that few persons terminate their own lives except as a result of wrongful actions which leave a stain on the memory of the departed. In olden times a suicide was always treated as an outcast and burial was refused in consecrated ground, but the churches today are far more tolerant and grossly obtuse as to what is really involved in most cases of self-murder.

It is no light thing that 12,000 or more in this country of abounding prosperity and well being should terminate their own existence, often wrongfully pursued, for selfish purposes and yet be honored and often praised or dealt with generously after death.

Additional to the foregoing statistics, I am enabled through the courtesy of the recorder of vital statistics of the Bureau of the Census to add the following table of deaths from suicide in the registration area of 1920 for the five years ending with 1924 and making distinction as to color and sex.

Deaths and Death Rates from Suicide, by Color and Sex, in the Registration States of 1920, 1920-1924.*

Year and color.	Number			Rate per 100,000 Estimated Population.		
	Both Sexes.	Males.	Females.	Both Sexes.	Males.	Females.
Entire populations						
1920	8,790	6,364	2,426	10.2	14.5	5.7
1921	10,906	8,430	2,476	12.5	19.0	5.8
1922	10,631	8,063	2,568	12.0	18.0	5.9
1923	10,525	7,892	2,633	11.8	17.4	6.0
1924	11,175	8,566	2,609	12.3	18.6	5.8
White						
1920	8,529	6,174	2,355	10.8	15.4	6.1
1921	10,569	8,175	2,394	13.2	20.0	6.1
1922	10,293	7,811	2,482	12.7	19.0	6.2
1923	10,215	7,658	2,557	12.4	18.4	6.3
1924	10,815	8,304	2,511	13.0	19.6	6.1
Colored						
1920	261	190	71	3.6	5.3	2.0
1921	337	255	82	4.7	7.0	2.3
1922	338	252	86	4.6	6.9	2.4
1923	310	234	76	4.2	6.3	2.1
1924	360	262	98	4.8	7.0	2.7

It is shown by this table that the suicide rate has increased from 10.2 per 100,000 in 1920 to 12.3 in 1924, making allowance for the probable omissions due to inaccuracy of death certification. I therefore feel that it is not going too far to estimate the possible number of suicides in this country at 15,000 per annum, while it is possibly even more. An interesting fact revealed by this table is that while the suicide rate for 1924 is 18.6 per 100,000 for males and 5.8 for females for the entire population, irrespective of race or color, it is 19.6 for the white males and 6.1 for the females and for the colored 7.0 for males and 2.7 for the females. The negro population therefore still maintains a relatively low suicide figure.

I also include in this discussion a brief summary of statistics, contained in a recent issue of the *Literary Digest,* derived from Bradstreet's and Dun's annual reports on business failures. The explanation is given that of the business failures of 1925, 81.9 per cent were due to the fault of those failing, while only 18.1 per cent were due to outside factors. Of the former, 36.9 per cent were due to incompetency; 33.3 per cent lack of capital; 4 per cent due to inexperience; 3.3 per cent on account of fraud and 4.4 per cent from miscellaneous causes.

What is true of business failures is largely true of living conditions in general. Incompetency and inexperience are leading factors in social maladjustment which often results in a determination to commit suicide to escape the consequences of an apparently intolerable situation. For this condition our modern methods of education are primarily responsible. Until the objective of education is more in the direction of building for character and conduct and not for the development of a scheming, plotting type, influenced only by the consideration of material gains, the present suicide condition will not improve but grow worse.—*The Spectator,* June 10, 1926.

* Including District of Columbia.

THE SUICIDE RECORD OF 1926.

Suicides during 1926, in proportion to the population, showed a slight but suggestive increase, equivalent to about 0.8 per 100,000 of population. This estimate is based on the preliminary records of 120 American cities with an approximate population of 32,000,000. These cities in 1926 had a rate of 15.9 per 100,000 of population, against a rate of 15.1 for the year 1925. Considering the vast population of the country, the suicide rate has reached fairly stable proportions. It would require quite extraordinary circumstances, social and economic, to affect the rate violently one way or the other. This is particularly evident in the recent interest in suicides of college students, as to which many erroneous views have been advanced. Under normal conditions, we have about 300 deaths from suicide at ages 15-19 and it is very doubtful whether during the present year this number has materially increased. The simple fact is that the subject has attracted more public attention than in the past and that every student suicide has been given wide publicity. That, of course, is by no means undesirable, for the subject is one demanding constant public consideration.

I.—*Suicides in American Cities—1900-1926.*

Year	No. of Cities	Population	Suicides	Death Rate per 100,000
1900	100	16,822,918	2,590	15.4
1901	100	17,378,867	2,703	15.6
1902	100	17,934,812	2,988	16.7
1903	100	18,490,757	3,335	18.0
1904	100	19,045,700	3,560	18.7
1905	100	19,602,647	3,560	18.2
1906	100	20,158,392	3,394	16.8
1907	100	20,714,536	3,886	18.8
1908	100	21,270,481	4,564	21.5
1909	100	21,826,426	4,447	20.4
1910	100	22,383,297	4,377	19.6
1911	100	22,904,660	4,674	20.4
1912	100	23,417,106	4,554	19.4
1913	100	23,948,530	4,710	19.7
1914	100	24,471,925	5,106	20.9
1915	100	24,994,329	5,209	20.8
1916	100	25,516,735	4,592	18.0
1917	100	26,039,139	4,358	16.7
1918	100	26,561,545	3,870	14.6
1919	100	27,083,949	3,875	14.3
1920	100	27,605,966	3,399	12.3
1921	95	27,677,955	4,323	15.7
1922	80	24,766,413	3,772	15.2
1923	80	25,210,996	3,827	15.2
1924	80	28,151,402	4,305	15.3
1925	75	27,404,111	4,282	15.6
1926	82	29,437,892	4,796	16.3

For the country as a whole, the suicide rate, according to the Division of Vital Statistics for 1925 was 12.1 per 1000. Making due allowance for the non-registration area and for erroneous reports, it is a safe assumption that the probable number of suicides in this country annually is

about 15,000. That, of course, is an appalling loss of life considering the fact that every suicide is self-inflicted. Something must be radically wrong with our civilization that so vast an army of men and women, young and old, rich and poor, white and black, should find the conditions of existence intolerable.

From the insurance point of view, suicide assumes more and more serious significance. To an increasing extent, suicides in adult life represent persons who often carry substantial amounts of insurance, the premature payment of which represents a serious loss to the affected policyholders. The question naturally arises whether any considerable number of such suicides could be prevented. In the light of my own extended investigations over many years, I am absolutely satisfied that this would not be impossible. The Save-A-Life League in New York has for many years carried on useful activities, which, to my personal knowledge in a measurable number of cases, have resulted in now and then preventing self-destruction. But no mere platitudes or commonplace philosophy will solve the problem. It is certainly significant that in many cases the intent of suicide has been clearly and often frequently indicated. It is by not taking threats of suicide seriously that many such cases are not prevented.

The suicide rate during 1926 increased in 62 cities out of the 120 cities available for review. The highest suicide rate for the year was for Sacramento, Calif., or 46.3 per 100,000, followed by a rate of 41.8 for San Diego, Calif. Other cities with comparatively high rates for the year are Atlantic City with a rate of 35.3; Dallas, Tex., 25.1; Denver, Colo., 25.6; Spokane, Wash., 26.6; Seattle, Wash., 22.8; Tampa, Fla., 22.5, and Los Angeles, Calif., 21.6. Suicides occurred during the year in all the 120 cities, but exceedingly low rates were reported for certain cities such as Bayonne, N. J., 2.2 per 100,000; Malden, Mass., 3.8; Mobile, Ala., 3.0; Petersburg, Va., 2.7, and Roanoke, Va., 1.6. The outstanding fact is, as usual, the excessive incidence of suicide on the Pacific Coast. No satisfactory explanation has yet been forthcoming why the tendency to suicide should be so decidedly more pronounced in the large Pacific Coast cities than on the Eastern seaboard. Thus the rate for Manhattan and the Bronx was 20.8. For Boston it was 13.3, for Philadelphia 15.0, for Baltimore 13.6, all rates quite considerably below the rates for Sacramento, San Francisco and San Diego.

II.—*Suicides in 120 American Cities.*

	1925			1926		
	Population	No. of Suicides	Rate per 100,000	Population	No. of Suicides	Rate per 100,000
Akron, O.	222,240	31	13.9	225,000	32	14.2+
Albany, N. Y.	117,820	12	10.2	119,000	7	5.9
Altoona, Pa.	66,148	2	3.0	67,000	5	7.5+
Atlantic City, N. J.	53,287	13	24.4	53,800	19	35.3+
Baltimore, Md.	796,296	96	12.1	808,000	110	13.6+
Bayonne, N. J.	88,767	2	2.3	91,000	2	2.2
Berkeley, Calif.	66,209	9	13.6	67,800	7	10.3
Binghamton, N. Y.	71,915	10	13.9	72,900	10	13.7
Birmingham, Ala.	205,670	28	13.6	211,000	34	16.1+
Boston, Mass.	779,620	111	14.2	787,000	105	13.3
Bridgeport, Conn.	151,010	21	13.9	152,500	20	13.1

	1925			1926		
	Population	No. of Suicides	Rate per 100,000	Population	No. of Suicides	Rate per 100,000
Brooklyn, N. Y.	2,203,235	234	10.6	2,240,000	216	9.6
Brockton, Mass.	71,536	7	9.8	72,495	5	6.9
Buffalo, N. Y.	538,016	49	9.1	544,000	81	14.9+
Camden, N. J.	128,642	12	9.3	131,000	14	10.7+
Canton, Ohio	106,260	12	11.3	110,000	14	12.7+
Cedar Rapids, Ia.	50,561	10	19.8	52,100	10	19.2
Chelsea, Mass.	47,247	2	4.2	48,200	4	8.3+
Chicago, Ill.	2,995,239	430	14.4	3,048,000	493	16.2+
Cincinnati, O.	409,333	74	18.1	411,000	84	20.4+
Cleveland, O.	936,485	138	14.7	960,000	146	15.2+
Columbus, O.	279,836	28	10.0	285,000	48	16.8+
Dallas, Tex.	194,450	36	18.5	203,000	51	25.1+
Dayton, O.	172,942	25	14.5	177,000	20	11.3
Denver, Colo.	280,911	81	28.8	285,000	73	25.6
Des Moines, Ia.	141,441	25	17.7	146,000	21	14.4
Detroit, Mich.	1,242,044	157	12.6	1,290,000	194	15.0+
Elizabeth, N. J.	109,298	5	4.6	112,000	12	10.7+
El Paso, Tex.	104,929	18	17.2	109,000	24	22.0+
Erie, Pa.	121,627	13	10.7	125,263	25	20.0+
Fall River, Mass.	128,993	11	8.5	131,000	9	6.9
Fort Wayne, Ind.	97,846	18	18.4	99,900	14	14.0
Fort Worth, Tex.	154,847	28	18.1	159,000	15	9.4
Gloucester, Mass.	22,947†	7	30.5	22,947	2	8.7
Grand Rapids, Mich.	153,698	17	11.1	156,000	18	11.5
Hamtramck, Mich.	81,731	2	2.4	87,800	6	6.8+
Harrisburg, Pa.	83,422	11	13.2	84,600	10	11.8
Hartford, Conn.	160,197	12	7.5	164,000	18	11.0+
Haverhill, Mass.	59,415	11	18.5	60,421	7	11.6
Hoboken, N. J.	69,696	8	11.5	70,000	8	11.4
Houston, Texas	236,381	31	13.1	256,000	40	15.6+
Indianapolis, Ind.	358,819	63	17.6	367,000	45	12.3
Jackson, Mich.	57,972	9	15.5	59,700	5	8.4
Jersey City, N. J.	315,280	26	8.2	318,000	35	11.0
Kalamazoo, Mich.	53,613	7	13.1	54,500	8	14.7+
Kansas City, Kan.	116,053	16	13.8	117,000	18	15.4+
Knoxville, Tenn.	95,464	7	7.3	98,800	12	12.1+
Lansing, Mich.	70,753	4	5.7	73,200	6	8.2+
Lawrence, Mass.	93,527	10	10.7	93,500	15	16.0+
Lincoln, Neb.	60,941	6	9.8	62,000	7	11.3+
Long Beach, Calif.	91,182	17	18.6	97,700	16	16.4
Los Angeles, Calif.	1,222,500	261	21.3	1,300,000	281	21.6+
Lowell, Mass.	110,296	6	5.4	114,000	9	7.9+
Lynn, Mass.	103,081	12	11.6	104,000	14	13.5+
Macon, Ga.	58,237	7	12.0	59,200	4	6.8
Malden, Mass.	51,789	4	7.7	52,400	2	3.8
Manchester, N. H.	83,097	1	1.2	84,000	6	7.1+
Manhattan, Bronx	2,817,197	575	20.4	2,777,000	579	20.8+
Memphis, Tenn.	174,533	27	15.5	177,000	28	15.8+
Milwaukee, Wis.	509,192	81	15.9	517,000	99	19.1+
Minneapolis, Minn.	425,435	106	24.9	434,000	91	21.0
Mobile, Ala.	65,955	6	9.1	66,800	2	3.0
Nashville, Tenn.	136,220	21	15.4	137,000	15	10.9
Newark, N. J.	452,513	54	11.9	459,000	65	14.2+
New Bedford, Mass.	135,129	12	8.9	137,659	7	5.1
New Britain, Conn.	68,039	1	1.5	69,600	7	10.1+
New Haven, Conn.	178,927	16	8.9	182,000	20	11.0+
New Orleans, La.	414,493	65	15.7	419,000	74	17.7+
Newport, R. I.	32,016	3	9.4	32,336	2	6.2
Newton, Mass.	53,003	9	17.0	54,700	3	5.5
Niagara Falls, N. Y.	57,033	9	15.8	58,300	6	10.3

	1925			1926		
	Population	No. of Suicides	Rate per 100,000	Population	No. of Suicides	Rate per 100,000
Norfolk, Va.	169,121	14	8.3	174,000	12	6.9
Oakland, Calif.	253,700	68	26.8	261,000	61	23.4
Orange, N. J.	35,379	1	2.8	35,800	6	16.8+
Pasadena, Calif.	56,732	11	19.4	58,400	13	22.3+
Passaic, N. J.	68,979	13	18.8	69,900	8	11.4
Paterson, N. J.	141,695	17	12.0	143,000	24	16.8+
Petersburg, Va.	35,712	3	8.4	36,400	1	2.7
Philadelphia, Pa.	1,979,364	247	12.5	2,008,000	302	15.0+
Pittsburgh, Pa.	631,563	94	14.9	637,000	87	13.7
Portland, Me.	75,333	15	19.9	76,400	9	11.8
Portland, Ore.	326,998	76	23.2	340,740	74	21.7
Portsmouth, Va.	59,029	3	5.1	59,900	3	5.0
Providence, R. I.	267,918	29	10.8	275,000	35	12.7+
Pueblo, Colo.	43,787	3	6.9	43,900	3	6.8
Quincy, Ill.	38,608	2	5.2	39,131	7	17.9+
Racine, Wis.	67,707	4	5.09	69,400	5	7.2+
Reading, Pa.	112,707	16	14.2	114,000	20	17.5+
Richmond, Va.	186,403	25	13.4	189,000	24	12.7
Roanoke, Va.	58,208	6	10.3	61,900	1	1.6
Rochester, N. Y.	316,786	43	13.6	321,000	45	14.0+
Sacramento, Calif.	72,260	39	54.0	73,400	34	46.3
St. Louis, Mo.	821,543	144	17.5	830,000	178	21.4+
St. Paul, Minn.	246,001	29	11.8	248,000	40	16.1+
Salem, Mass.	42,821	4	9.3	42,900	3	7.0
Salt Lake City, Utah	130,948	24	18.3	133,000	15	11.3
San Antonio, Tex.	198,069	22	11.1	205,000	20	9.8
San Diego, Calif.	106,047	42	39.6	110,000	46	41.8+
San Francisco, Calif.	557,530	176	31.6	567,000	200	35.3+
Schenectady, N. Y.	92,786	6	6.5	93,000	8	8.6+
Seattle, Wash.	395,530	92	23.3	411,500	94	22.8
Somerville, Mass.	99,032	5	5.0	100,000	10	10.0+
Spokane, Wash.	108,897	27	24.8	109,000	29	26.6+
Springfield, Ill.	63,923	9	14.1	64,700	8	12.4
Springfield, Mass.	142,065	19	13.4	145,000	17	11.7
Springfield, O.	68,725	7	10.2	70,200	6	8.5
Syracuse, N. Y.	182,003	38	20.9	185,000	25	13.5
Tacoma, Wash.	104,455	30	28.7	106,000	19	17.9
Tampa, Fla.	94,743	14	14.8	102,000	23	22.5+
Terre Haute, Ind.	71,071	14	19.7	71,900	15	20.9+
Toledo, O.	267,380	32	11.1	295,000	39	13.2+
Topeka, Kans.	55,411	4	7.2	56,500	8	14.2+
Trenton, N. J.	132,020	26	19.7	134,000	26	19.4
Troy, N. Y.	72,223	17	23.5	72,300	14	19.4
Tulsa, Okla.	121,640*	6*	4.9	133,000	13	9.8+
Washington, D. C.	514,000	71	13.8	528,000	86	16.3+
Wheeling, W. Va.	56,208†	9	16.0	56,208	4	7.1
Winston-Salem, N. C.	69,031	.....	.....	71,800	6	8.4+
Worcester, Mass.	190,757	21	11.0	193,000	20	10.4
Yonkers, N. Y.	113,647	10	8.8	116,000	8	6.9
Total	32,600,971	4,915	15.1	32,209,400	5,283	15.9

* Nine months only.
† Population Jan., 1920.

III.—*Suicides in 20 American Cities—1926*

	Population	No. of Suicides	Rate per 100,000
Allentown, Pa.	94,600	20	21.1
Charleston, S. C.	74,100	4	5.4
Davenport, Ia.	56,000	18	32.1
Duluth, Minn.	113,000	15	13.3
Evansville, Ill.	95,100	17	17.9
Flint, Mich.	136,000	13	9.6
Fresno, Calif.	60,200	6	10.0
Gary, Ind.	80,800	9	11.1
Jacksonville, Fla.	137,000	15	10.9
Kansas City, Mo.	375,000	71	18.9
Lakewood, O.	59,500	2	3.4
Little Rock, Ark.	75,900	17	22.4
Louisville, Ky.	311,000	63	20.3
Oklahoma City, Okla.	145,000	21	14.5
Peoria, Ill.	82,500	21	25.5
Rockford, Ill.	78,400	15	19.1
Saginaw, Mich.	73,300	7	9.5
Shreveport, La.	59,500	7	11.8
Sioux City, Ia.	78,000	23	29.5
South Bend, Ind.	81,700	19	23.3
Wilkes-Barre, Pa.	78,300	10	12.8
Youngstown, O.	165,000	14	8.5
	2,509,900	407	16.2

Many studies of suicide have been made but chiefly limited to its statistical aspects. It should be perfectly obvious by this time that not much more is to be learned by mere collective statistical investigations but that the line of research should follow a painstaking inquiry into the antecedent conditions of individual cases of self-destruction. This, of course, is always a matter of delicate procedure requiring infinite tact, persistence and a wide knowledge of the human mind and its disorders. The evidence in most suicide cases as to underlying conditions is usually successfully hidden and nearly always exceedingly difficult to ascertain. For it goes without saying that in many suicides other members of the family are more or less responsible if only because of a lack of sympathy, interest and co-operation with the precarious mental condition of the person contemplating suicide to the point of successful fulfilment.

In any event, as pointed out, the suicide rate of this country at the present time indicates no very alarming tendency towards a material increase. The wide publicity of student suicides does not justify most of the comments as regards alleged suicide epidemics or suicide waves, which exist chiefly in the imagination of amateurish observers. Our suicide rate at the present time is about the same as that of the Commonwealth of Australia, which in 1924 was 11.25 per 100,000 of population. The rate for New Zealand for 1925 was 13 per 100,000. Comparing our own rate of about 12 per 100,000 with certain other countries, it appears that for recent years the international comparison is about as follows:

Suicides per 100,000 Population.

Northern Ireland	3.7	Uruguay	12.9
Spain	3.9	Denmark	13.9
Scotland	6.0	Sweden	14.0
The Netherlands	6.7	Japan	19.3
Italy	7.8	Austria	21.2
England and Wales	9.7	Germany	21.4
Finland	10.4	Switzerland	21.9
Australia	10.0	Hungary	22.8
New Zealand	12.3		

These rates, of course, are somewhat fragmentary, but they are sufficient for the purpose of emphasizing the conclusions that the United States at present holds a normal position as regards suicidal frequency, as would naturally be expected considering our satisfactory economic condition. Just because of that fact, however, our suicide rate is higher than it should be. Something, as pointed out, is radically wrong with our civilization and particularly with our educational methods which result in an unstable mentality, ill adjusted to the exacting needs of a modern competitive existence. Religion unquestionably has lost much of its former influence upon conduct and character. But, of course, reflections of this sort lie largely outside of the field of the statistician who is chiefly concerned with emphasizing tendencies, which fortunately as regard suicide at the present time in this country, are not seriously in a wrong direction.—*The Spectator,* 1927.

THE SUICIDE RECORD FOR 1927.

The suicide trend during 1927 was slightly upwards suggestive of disturbed economic conditions more or less reflected in the record of business failures. According to the consolidated figures from different sources, the total number of business failures during 1927 was 21,706 against 20,893 in 1926. The amount of liability involved increased from $532,235,000 in 1926 to $586,617,000 in 1927.

For 143 cities with an aggregate population of more than 35,000,000, the suicide rate during 1927 was 16.3 per 100,000 against 15.8 during 1926. The rate increased in 74 cities and declined or remained stationary in the remainder. The rate was highest during the year in the city of Sacramento, California, or 50.9 per 100,000. This is one of the highest rates on record since suicide statistics have been compiled. The next highest rate was recorded for Davenport, Iowa, or 49.6, followed by San Diego with 47.7, San Francisco 43.8, Cedar Rapids, Iowa, 33.3, Augusta, Georgia, 33.0, and Spokane, Washington, 30.2. For the remainder of the cities, the rates are below 30 per 100,000. The American urban suicide rate does not, of course, precisely reflect the condition for the entire country. The latest official returns for the registration area are for 1926, when the suicide rate was 12.8 against a rate of 12.1 for 1925. Assuming that the rate at the present time is 13 per 100,000 for the entire Continental United States, this, on the basis of 120,000,000 population, would give approximately a total of 16,000 suicides during the course of the year. The actual number of suicides recorded in the registration area in 1926 was 13,410.

In 1924 the suicide rate for registration cities was 14.7, while that for the rural portion of the registration area was 9.8. The rate for cities, therefore, is approximately 2.5 per 100,000 higher than for the cities and rural districts combined. Comparing the suicide rate for approximately 100 cities since 1900, it appears that at the beginning of the period, the rate was 15.4, rising to a maximum of 21.5 during 1909, declining gradually to a minimum rate of 22.3 during 1920 and gradually increasing since that time to 18.6 in 1927. The details are given in table No. 1.

A question which naturally arises in this connection is how the United States compares with foreign countries. Crude statistics not adjusted for age and sex distribution are, of course, never strictly comparable, but at best a suggestive indication of the probable facts of the situation. The following table for recent years has been abstracted from the New Zealand Year Book for 1928, with the rates for 10,000 of population mostly for the period 1921-25.

International Suicide Rates—1918-1926.

Country	Quinquennium	Rate Per 10,000 of Population
Jamaica	1921-25	0.15
Irish Free State	1921-25	0.27
Chile	1919-23	0.33
Spain	1919-23	0.39
Ceylon	1921-25	0.49
Norway	1918-22	0.50
Northern Ireland	1921-25	0.55
Netherlands	1921-25	0.62
Scotland	1921-25	0.66
Canada	1921-25	0.78
Italy	1920-24	0.82
England and Wales	1921-25	1.01
Australia	1922-26	1.09
Finland	1920-24	1.14
United States	1920-24	1.17
New Zealand	1922-26	1.20
Uruguay	1919-23	1.29
Belgium	1919-23	1.32
Sweden	1921-25	1.39
Denmark	1920-24	1.40
Japan	1921-25	1.97
Austria	1918-22	2.12
Germany	1919-23	2.14
Switzerland	1919-23	2.26
Hungary	1918-22	2.28

In this table the United States is given a rate of only 11.7 per 100,000 which is probably lower than the actual facts for the period under review. It is almost the same as for New Zealand and about the average for all the countries combined. The lowest suicide rate is for Jamaica, or 1.5 per 100,000, followed by the Irish Free State with a rate of 2.7. Next come Chile and Spain, both like the Irish Free State, intensely Catholic countries. Highest in the group are the four Continental European countries of Austria with a rate of 21.2, Germany, 21.4, Switzerland, 22.6, and Hungary, 22.8.

Table No. 2 gives the returns for 143 American cities amplified by a supplementary table for 19 additional cities, for which the returns for 1926, however, are not available. The two tables present a complete picture of the suicide rate throughout the United States in representative urban centers. Of particular significance are the returns for six cities with rates below 5 per 100,000. These in the order of their importance are Somerville, Massachusetts, 2.0; Manchester, New Hampshire, 2.4; Bayonne, New Jersey, 3.2; Portsmouth, Virginia, 3.3; Mobile, Alabama, 4.4; Flint, Michigan, 4.9. The heaviest relative increase in the suicide rate during the year occurred in Augusta, Georgia, or from 9.0 in 1926 to 32.0 in 1927. In the large centers of populations or cities with more than a million inhabitants the rates have been as follows: Manhattan and Bronx, 23.2; Los Angeles, 19.0; Chicago, 15.8; Detroit, 14.6; Philadelphia, 14.1; Brooklyn, 13.8. In most of these cities the rate declined more or less excepting the Borough of Manhattan and Bronx and the Borough of Brooklyn, where there was a slight increase. There are no indications that our very large cities are especially subject to a

high degree of suicidal frequency. As shown at the outset, most of the cities with a high degree of suicidal intensity are on the Pacific Coast. San Diego, which for a number of years has occupied first place, shows a slightly lower rate than Sacramento, both cities, however, showing a higher rate for 1927 than for 1926. Of special interest this year is the exceptionally high rate for Augusta, Georgia, which in 1927 had 18 suicides against 5 during the preceding year. The suicide problem admits of extended consideration, involving as it does nearly every phase of our social and economic life. Thus, for illustration, an aspect of the problem which has never received extended attention is the evidence, which seems to be incontrovertible, that the suicidal propensity is greatest among persons accused of or convicted of crimes. While suicides in prison are not a fair index in that methods and measures of restraint are applied which make suicide difficult, there are countless cases on record in which persons apprehended or anticipating arrest have ended their lives to escape the impending punishment. The most trustworthy statistics on the subject of which I have knowledge are those annually collected by the British Government for England and Wales. The latest data available are for 1924. It is shown, for illustration, that out of 390 persons apprehended for murder, 83 committed suicide. It may also be pointed out in this connection that multiple murders are frequently followed by the suicide of the murderer. In other words, while there is no precise correlation between the suicide and the homicide rate, there is a strong inclination on the part of the murderers to end their own existence, while on the other hand persons contemplating suicide commit murder before ending their own lives. I have no record of a case of punishment of a prison official who has permitted a convicted person to end his or her existence while under prison control. Yet the prison officials are unquestionably, in many cases, seriously to blame for neglecting obvious precautions.

Another phase of the suicide problem never fully investigated is the occurrence of suicides among patients in institutions for the insane. I have been furnished with the returns for the period 1916-26 of suicides in New York Civil State Hospitals. During the five years ending with 1921, there were 91 suicides, while during the five years ending with 1926, there were 102. Of the total number of suicides since 1916, 131 were males and 68 females. On the basis of the average population in institutions for the insane in New York State, the suicide rate was practically the same for the two five-year periods, or 53 per 100,000 of population. This rate, of course, must not be compared with the average rate for all ages as previously given for American cities of the registration area. Through the kindness of the Secretary of the Board of Control of Lunacy and Mental Defectives of England and Wales, I have been furnished with the corresponding returns for suicides in British institutions for the insane. The suicide rate for the five years ending with 1921 was 45 per 100,000, while for the five-year period ending with 1926 it was 43. The rates are, therefore, somewhat lower than our own, possibly suggestive of a lesser degree of precaution against violence on the part of the inmates. The figures for both areas, however, suggest a strong suicidal propensity on the part of the mentally deranged which cannot be too strongly emphasized.

In all of my annual reviews, I have avoided the question of attempts at suicide, for which for this country, statistics are difficult to secure and, as a rule, of doubtful value. The Chief of Police of Chicago, however, has furnished me with the following interesting returns for the six years ending with 1926. During this period, there had been 3,947 attempts at suicide and 2,609 successful suicides, a total of 6,556. In proportion to the total suicide cases the percentage of successful cases was, therefore, about 40%, which may be applied to the estimated number of about 16,000 suicides in this country, suggestive of 40,000 cases contemplating suicide during the year. How far the figures for Chicago apply for the whole country is, of course, a matter of conjecture, but they may safely be assumed to understate the facts in that many attempts at suicide do not come to the attention of the police. In England and Wales, attempt at suicide is an indictable offense. In 1926 there were 2,194 suicide attempts known to the police. The number of persons proceeded against was 657, of which number 395 were males and 262 were females. The number apprehended was 646. The number summoned was 11. The number discharged was 232. The number acquitted was 105. The number of charges proved without conviction was 246. The number actually convicted was 25. It is evident that the law against suicide in England is not rigorously enforced. The annual averages since 1899 to the end of 1924 have been as follows:

Recorded Suicide Attempts in England and Wales, 1899-1924. (Average Annual Number)—Rates Per 100,000.

Year	Number	Rate
1899-1903	2,124	6.51
1904-1908	2,489	7.25
1909-1913	2,399	6.63
1914-1919	1,213	3.16
1920-1924	1,585	4.15

This table may be read in comparison with the annual suicide rates for England and Wales for 1916-1926, which per million of population have been as follows:

Suicide Rate of England and Wales, 1916-26—Per 100,000.

	Males	Females	Total		Males	Females	Total
1916	11.5	4.1	7.03	1922	16.6	5.4	10.0
1917	9.7	3.8	6.04	1923	15.7	5.3	10.3
1918	11.1	4.7	7.05	1924	14.2	5.4	9.6
1919	13.6	5.1	8.8	1925	15.3	6.1	10.5
1920	13.4	5.1	9.0	1926	16.6	6.6	11.4
1921	15.3	5.0	9.9				

These and other statistics fairly reflect the suicidal trend in English speaking countries during recent years. For Continental European countries, the rates are usually higher than for Great Britain and the United States. While the tendency has been slightly upward, it is not pronounced. For Germany, for example, the rate for 1924 was 3.5 per 100,000 for males, 1.2 for females, and 2.3 for both sexes combined. For 1925 the rate was 3.5 for males, 1.3 for females, and 2.5 for both sexes. In actual numbers, there were 13,307 suicides in 1922, 13,149 in 1923, 14,338 in 1924, and 15,273 in 1925. The respective death rates were 2.2 and 2.1 for 1922 and 1923 against 2.3 and 2.5 for 1924 and 1925.

There is no very recent entirely satisfactory treatise on suicide useful for practical purposes. A useful volume has been issued during the present year on The Suicide Problem of the United States by Dr. Adolph Dominic Frenay which can be consulted to good advantage, but it falls far short of the more exhaustive discussion in German by Dr. Gerhard Fullkrug, Director of the Central Committee of the International Mission of the German Evangelical Church issued in 1919. In this book the author reflects upon the most important phases of the suicide problems in the light of an extended personal experience with would-be suicides or the study of fatal cases. That is precisely what is most wanted. Statistics, as such, will never answer most of the questions which arise in connection with self-destruction. The various organizations which have been established for the purpose of preventing suicides have always languished for adequate support. The Save-a-Life League of the United States, with offices in New York (50 East 42d Street*), in charge of Dr. Warren, is one of the outstanding efforts of this kind. It deals with about one thousand suicide cases a year and unquestionably has been effective in saving many lives.

Dr. Fullkrug gives three fundamental principles of dealing with would-be suicides under such conditions. First, there must be unconditional confidence in the relations of the adviser to the person in distress. Second, there must be a rational inquiry into the circumstances predisposing to suicide, followed by sound advice based on a thorough understanding of human nature, and socially and morally, and other problems of the time. Third, there must be no guarantee of money support. The latter is called for as a safeguard against imposition.

As a practical illustration of what such a society can do, reference may be made to a suicide case just reported in the Boston papers. A young woman was dismissed from a local university for the infraction of rules and regulations possibly calling for drastic treatment. Soon after she purchased a bottle of iodine and attempted suicide. Her recovery is doubtful. Such a person obviously needs the most intelligent consideration possible to avoid a recurrence and to save what may possibly prove to be a very valuable life. Another current case was that of a wealthy Polish banker in Chicago who, well advanced in years, suddenly wearied of his problems and possibly of physical suffering ended his life. There is no question of doubt, in the light of my own experience, that many valuable lives could be saved if such an organization as the Save-a-Life League were better known throughout the country and had adequate support to carry on its useful work. Frequently those who come to the society for advice emphasize the fact that dependent relatives will be provided for through insurance.

My first article on suicide to the *Spectator* was on the subject of Suicide as a Factor in Life Insurance, contributed to the August 6th and August 20th issues of 1896. In that year, I published a review of the suicide record for 1896 and I have done so annually since with the exception of two years, when urgent office matters made it impossible to compile the information. In response to frequent demands for earlier issues, which are now all out of print, the entire series has been reprinted and will be available to those who are concerned with a more intensive study of an outstanding problem of the present day. During the more

* The address given on page 231 is incorrect.

than thirty years since, I have been interested in the question, I have touched upon nearly every phase for which data could be obtained from American sources. European statistics are somewhat more complete, particularly with regard to methods and motives, as to which our American information is of doubtful value. Among the questions to which I would like to have given more consideration, the most important perhaps is that of heredity or a family record of suicide in the history of the patient. But all such data that I have knowledge of are more or less inconclusive. A statement made many years ago by Ribot in his treatise on Heredity that "Among morbid psychological affections, there is none the heredity of which is better proved than that of suicide." There is much evidence available in support of this startling conclusion. What is probably inherited is an unstable mentality and a profound suggestion which operates upon conduct. It is a phase of the subject which should be more exhaustively studied. According to Frenay, "Cases of suicide occur within families where it was unknown for generations. We do not believe in hereditary of suicide, because it has never been even probably shown to exist, though individual cases of two or three suicides within the same family line are on record. The example set by parents and the philosophy of life taught by them to their children may result in death by suicide for a succession of generations. Example influences, and the example given by the parents invites to imitation. Hoffman, who writes in the Reference Handbook of Medical Sciences, refers to such cases, where grandfather, father and son died by suicide. Yet they are of rare occurrence, and do not constitute any rule." Considering the large number of suicides in this country annually, one would naturally expect a larger frequency of familia cases if the hereditary tendency were pronounced, but that the burden of a family record with a suicide is a most disquieting factor in the family history cannot be denied.

A further important phase concerning which it would be of value to have more information is the occurrence of so-called suicide pacts or double suicides based upon an agreement between the two parties concerned. Of such cases, there have been quite a number during recent years and the tendency would seem to be on the increase. They are particularly to be anticipated in the case of college students and young people otherwise, who form hopeless alliances or friendships. A threat of suicide in such cases should always be taken seriously. A third important phase is the correlation of existing serious illness to a suicidal predisposition. Cancer patients, particularly, are exceptionally liable to end their existence, to terminate what has become a condition of intolerable suffering. Here again the slightest intimation of suicide suggests extraordinary precaution.

Last year, there was claimed to have been an epidemic of suicide among college students, but there is no definite evidence to the effect that the number of suicides under twenty-one was much larger than in years past. The cases in question simply attracted unusual attention and for a while the subject was kept constantly before the public, while in other years it was complacently ignored.

Of increasing importance also are cases in which suicides follow a previous murder. Here again, we are in need of much more definite information based upon an extended study for a number of years.

As I have often had occasion to point out, suicides are becoming more involved and often with difficulty admit of a definite diagnosis. In all unusual occurrences of this sort, there are three contingencies involved. The question may be one of murder, or suicide or an accident, and by confusing the evidence the person concerned frequently eliminates all obvious traces that would justify a verdict, leaving no alternative but to classify the death as accidental.

Disappearance cases are apparently on the increase and often remain entirely unsolved. It is a question whether our police and detective methods are really efficient in directions in which the utmost skill is required. The same, of course, applies to murder cases.

The methods of suicide from time to time undergo profound changes, but in this country the large majority of suicides are still committed by firearms which are everywhere available, recklessly sold, and often to persons obviously in unstable mental condition. The authorities are themselves largely responsible for numerous cases of suicide and murder, because, in the absence of adequate laws and regulations, firearms are sold to those who have no right to possess them. Suicides by jumping from high places are apparently on the increase due, of course, in part to the growing height of buildings which are frequently a strong temptation. There is on record one suicide at least from an aeroplane in Europe and it would not take many such cases to suggest the method to others in unstable mental condition. Suicides by poisonous gas are on the increase. At the present time possibly 1,500 persons a year end their existence in this manner. In San Diego, California, where the suicide rate has for many years been excessive, out of 55 suicides, 21 were by poisonous gas, while only 19 were by firearms. In the registration area in 1924, out of 12,061 suicides, 4,280 were by firearms, while 768 were by poisons, and 1,232 by corrosive substances. The latter, of course, are easily obtainable, though they often involve terrible suffering on the part of the victims.

Finally, there is the important question of the effect of religious confession upon suicidal tendency. The suicide rate is lowest among ultra Catholic countries such as the Irish Free State, Spain, Mexico and Chile. Suicides among orthodox Jews a generation ago were relatively rare, but with the increase in the number of non-orthodox Jews the tendency to suicide has also been greater. Thus in Prussia the suicide rate for Jews per 100,000 increased from 32.2 during 1903-13 to 41.6 during 1919-23. In Saxony the suicide rate for the same period was 10.5 for Catholics, 25.0 for Protestants, and 41.6 for Jews. While the suicide rate for England and Wales in 1926 was 11.4 per 100,000, that of the Irish Free State during 1925 was 3.0 and for Northern Ireland, which is almost entirely Protestant, 6.0. Thus the evidence leans strongly towards the conception that profound religious convictions are a decided barrier to self-destruction. Unfortunately, it is very difficult to make absolutely sure of the facts in individual cases, without painstaking inquiry which is generally precluded by reasons of personal privacy.

Summarizing the present situation, it appears that while the suicide rate during 1927 was slightly higher than during the preceding year, it is still far from having reached the excessive proportions of 1908, when the rate reached a maximum of 21.5 per 100,000 against a rate of 16.6

per 100,000 during 1927. But we have been enjoying a long period of extraordinary prosperity, the disturbance of which would unquestionably alter the situation. In the aggregate the approximately 16,000 successful suicides a year are but a fragment of the vast amount of mentally disturbed persons who are always on the borderland of self-destruction. The total of such persons during the course of a year is about 40,000 or more. Hence it cannot be too strongly urged upon those who are in a position to do so, that the entire question be much more thoroughly investigated than is possible in the usual statistical studies which can at best but indicate the direction which adequate research should follow.

—*The Spectator,* May 10, 1928.

WHO COMMITS SUICIDE.
THE SUICIDE PROBLEM IN THE UNITED STATES.

By Adolph Dominic Frenay. Badger. 200 pp. Price $3.00 postpaid of *The Survey,* January 15, 1928.

This valuable contribution to the suicide problem reveals much painstaking effort and a fairly comprehensive knowledge of suicide in its manifold aspects. The writer draws perhaps too much upon statistics and overloads his work with statistical references, many of which have not been subjected to very critical consideration, especially from an international point of view. Yet he presents a fairly comprehensive historical retrospect and emphasizes the wide variations in the suicide rates of different countries. Unfortunately, in considering the means or methods of suicide in its biological and social aspects, too often conclusions are advanced upon fragmentary or untrustworthy statistics. The occupational aspect of the subject is treated almost entirely with reference to the returns for the state of New Jersey; they are not worked out on the basis of the occupational exposures, but merely on the percentage distribution of deaths from principal causes. This method has long since been found fallacious. It is surprising that no more extended use was made of the occupational suicide statistics published by the registrar-general of England and Wales.

The economic aspects are discussed to much advantage. What the writer has to say regarding institutional suicides is particularly suggestive, but often inconclusive. Suicides in institutions are subject to strong preventive checks which do not indicate the suicidal tendency among the mentally unbalanced as clearly as would be desirable. Nor is enough made of the strong tendency among prisoners, or persons accused of crime, or apprehending punishment. There is a brief discussion on the relation of suicide to weather conditions, which is also inconclusive. The international and racial aspects are dealt with at length and summarized in the statement that "the Irish-Italian-Polish immigrant shows a very slight tendency towards suicide. The German-Scandinavian immigrant manifests a pronounced tendency towards suicide." But racial antecedents in such cases are strongly influenced by religious beliefs. It might have been more emphasized that the Irish, Spanish and Mexicans, who are Catholics, show the lowest rates of suicide, while the strongly Protestant countries show the highest.

The work is a trustworthy reference upon nearly all the important aspects of suicide, not one of which, however, as yet has received the thoughtful consideration in this country that has been given it in Europe. What is needed is the kind of treatment presented by Dr. Placzek of Berlin, in his treatise on Suicide Suspicion and Suicide Prevention. Unfortunately this elaborate monograph has not been translated into English. It was published in 1915 as a guide to physicians, clergymen, teachers and administrative officers, for it is on these, in the last analysis, that responsibility of prevention rests in its larger aspects. It is very curious that the important work of the Save-a-Life League should not have been dealt with.

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SUICIDE AND OCCUPATION.

The possibility of the probable relation of occupation to suicide has attracted the attention of most of those who have essayed upon the subject. Perhaps the most extended discussion is by Morselli, whose work was published in 1882, but his observations relate entirely to European countries and are at best but a fragmentary contribution to a very complex aspect of the whole question. O'Dea in 1882 discussed the matter at some length but also to small purpose, basing most of his conclusions upon European observations. Westcott in 1885 refers to the matter very briefly, observing properly that "it is a matter of the greatest difficulty to procure statistics sufficiently reliable, of the numbers of each profession and trade, to couple with the numbers of known suicides of each trade and profession, for the purpose of obtaining a 'professional suicide rate.'" Kurkin in his essay on Suicide in Saxony, issued in 1913, has some extended observations of largely local application. Frenay, whose work on the suicide problem in the United States, which has recently been published, includes a discussion on the occupational aspect, largely with reports of statistics derived from the State of New Jersey. But unfortunately the latter are not correlated to the number employed in the different vocational pursuits but based only on the proportion of suicides to deaths from all causes.

The only really trustworthy statistics with which I am familiar are those of the British Registrar-General, issued every ten years, of which the latest available are for the three years 1910-1912. Statistics of this kind have been collected for more than fifty years by the British Government and they are apparently the most trustworthy and conclusive, having reference, however, of course, only to English conditions. All suicide rates are modified by local circumstances, such as conditions of employment, degree of competition, business hazards and, finally, by religion. What would be true of a population with a large Jewish element or a large Catholic element would probably not be true of the same occupations if carried on exclusively by Protestants or others. At the same time, it may safely be asserted that occupation does have some direct relation to suicidal intensity and it would be well worth while to make a more extended study of the whole question. For the present purpose, I have recalculated the British suicide rates for quite a number of specified occupations or groups of employments, for the age period twenty-five and over. The results are set forth in the following tabulation, which gives the actual data, as well as the relative rate per 100,000 of population:

Suicide and Occupation, England and Wales, Age 25 and Over—1910-1912. Rate Per 100,000.

	Years of life	Suicide	Rate
Occupied and retired males	25,708,000	7,277	28.3
Upper and middle class	2,865,000	805	28.1
Skilled workers	6,014,000	1,499	24.9
Unskilled workers	4,227,000	1,403	33.2
Agricultural workers	1,259,000	256	20.3
Clergymen	123,000	16	13.0

	Years of life	Suicide	Rate
Lawyers	66,000	33	50.0
Physicians	73,000	34	46.6
Teachers	172,000	36	20.9
Commercial travelers	239,000	77	32.2
Commercial clerks	598,000	160	26.7
Insurance officials and clerks	89,000	14	15.7
Insurance agents	146,000	58	39.7
Railway engine drivers, etc.	160,000	9	5.6
Railway guards, etc.	404,000	55	13.6
Seamen	257,000	83	32.3
Dock and ship laborers	276,000	62	22.4
Gardeners and nurserymen	607,000	183	30.1
Coal miners	1,756,000	287	16.3
Stone cutters and masons	298,000	80	26.8
Machine and engine workers	884,000	177	20.0
Iron and steel workers	634,000	111	17.5
Carpenters and joiners	533,000	135	25.3
Bricklayers	282,000	70	24.7
Painters and decorators	468,000	145	30.9
Plumbers and glaziers	183,000	41	22.3
Chemists and druggists	61,000	35	57.4
Printers	230,000	39	16.9
Cotton manufacturers	408,000	129	31.6
Tailors	341,000	111	32.5
Shoemakers	440,000	142	32.3
Bakers and confectioners	263,000	82	31.3
Grocers	328,000	107	32.6
Hotel keepers and publicans	271,000	177	65.3
Shopkeepers	1,515,000	507	33.5

O'Dea in his discussion of suicide and occupation points out that one of the earliest contributions to the subject was made by Dr. Farr in an appendix to the Third Annual Report of the Registrar-General of England, covering the early '40's. He points out that it appears from Dr. Farr's researches that "Suicide is least among those who carry on out-of-door occupations, and greatest among artisans who are occupied indoors, and have little muscular exercise." He then continues to state that "The tendency to suicide among masons, carpenters and butchers, whose trades bring them a good deal in the open air, was during the year covered by these researches (1841), 1 in 9332, against 1 in 1669 tailors, shoemakers, and bakers, whose trades are followed indoors." These observations have been sustained by subsequent experience, as shown by the table, while agricultural laborers have a rate of 20.3 per 100,000, carpenters have a rate of 25.3, tailors 32.5 and bakers 31.3. As a general principle, then, it may be said that outdoor occupations have a lower rate of suicide than employments carried on indoors. But this does not apply to seamen who have a rate of 32.3, nor of gardeners and nurserymen who have a rate of 30.1, both considerably above the average for agricultural laborers.

O'Dea compares the laboring man with the printer. He points out that the former works largely in the open air with his nutritional conditions usually very good, while the latter's nutritive functions are not as vigorous and the food is not so easily assimilated. According to the preceding table, unskilled workers have a rate of 33.2, while printers have a rate of only 16.9, proving the very opposite of the contention made. Printers, as a matter of fact, in my Health Survey of the Printing Trades, have a

surprisingly low suicide rate when the data are considered for a long period of years.

The outstanding fact of the preceding tabulation is the extraordinarily low suicide rate of the clergy and the extremely high rate of hotel keepers and publicans, including bar keepers. This striking fact has been revealed in nearly every investigation that has been made. The conclusion indicates the strong inhibitive influence of religious habits and thoughts upon the former and the evil influence of loose habits of living on the latter.

Of peculiar significance is the high rate among lawyers and an equally high rate among physicians and surgeons in contrast to the very low rate among teachers. Perhaps no occupations suffer a more intense occupational strain than the law and medicine. Failures in these occupations are relatively common in view of the intense competition. The teaching profession, like that of the clergy, is perhaps the one most conducive to a healthy, well ordered and carefree life, regardless of the low compensation usually paid in return for the value of the services rendered. Another striking fact revealed by the table is the high rate among chemists and druggists accounting for 57.4, or almost as high as that of hotel keepers and publicans. Here the inference is obvious that ready access to poisonous substances and habit-forming drugs bears some relation upon the higher degree of suicidal frequency. Propinquity in suicide has much to do with individual cases, of which O'Dea enumerates some striking examples. He states for illustration that "It is curious to observe how the special occupation of a person will sometimes determine the mode in which he puts an end to his life. A tinsmith committed suicide by swallowing muriatic acid, a substance in common use in his trade. A picture-framemaker ended his days by a dose of sulphuric acid, a fluid in frequent use in his particular craft. Perhaps the most striking examples of this relation recorded in the United States, are two that occurred a few years ago. One was the suicide of a blaster, who blew himself to atoms with the gunpowder he was to have used for blasting rock. The other was that of a young coal worker, Prussian born, who, during midday recess, when his companion workmen were dining, plunged into a seething furnace and perished after a moment of what must have been dreadful agony." Of such illustrations, a large number have come to my personal attention during the last thirty years. Thus suicide among policemen, as well as in the army, is generally by shooting. The high suicide rate in the army has attracted attention for a number of years, though not as much as it should. The fact is not generally recognized or known that in 1925, for illustration, suicide was the leading cause of death in the army personnel, accounting for a rate of 0.31 per 1,000, followed by drowning, airplane accidents, tuberculosis, automobile accidents, pneumonia, and homicide in the order named. Among white enlisted men only, the suicide rate was 0.29, the rate for pneumonia 0.25 and that for automobile accidents 0.22 and the same for tuberculosis. These rates have reference only to white enlisted men in the United States. The rates for officers in all countries were 1.75 for airplane accidents, 0.44 for suicides, the same for automobile accidents and 0.26 for cancer and the same for chronic nephritis. No explanation has ever been offered why the suicide rate should be so high, except on the ground

that many of the army find the conditions unsuitable to their nature or become involved in complications which leave no other solution than self-destruction.

It would be interesting if information could be obtained as regards the relative frequency of suicide among bankers and bank employees. If reliance can be placed upon newspaper information, suicides among this group are quite disproportionate to suicides in many other professional employments. Nowhere perhaps is the temptation to wrongdoing greater than in banks and nowhere is the penalty for wrongful conduct more certain.

By reference to the table, it will be observed that insurance officials have a rate of 15.7, while insurance agents have a rate of 39.7. The frequency of suicide among insurance agents is well known, and no employment is perhaps more exacting in its correlation to cause and effect than that of the insurance agent, frequently ill prepared for his work and assuming that the road to success is much easier than it is. Insurance agents frequently have tried one employment after another and failure in the insurance business is only the climax to a long series of previous mistrials.

It is rather surprising to find the rate for coal miners to be so much below the average. The rate given in the table is only 16.3 against 24.9 for skilled workers. But coal miners represent a robust, wholesome type not easily given to moody retrospection. They are much more optimistic by nature than tailors, for example, who have a rate of 32.5, or shoemakers who have a rate of 32.3. Here again a sedentary occupation unquestionably bears directly upon the suicidal propensity.

Of exceptional interest is the low rate of railway employees, being in fact the lowest in the tabulation, but it is to be said in explanation it does not include all the employments enumerated in the British Blue Book. The whole list would unduly extend the whole question, while for some the numbers are too small to justify acceptance. Railway employees, especially in this country, represent about as fine a type of industrial worker as any in the large army of the constantly employed. They are generally of an optimistic, robust temperament, typical of a select group living under exceptionally satisfactory economic conditions. Here, if anywhere, the suicide rate should be low, and, as a matter of fact, that is found to be the case.

The unskilled workers have a rate of 32.2 against a rate of 24.9 for skilled workers. It is rather surprising that the rate is not higher. The unskilled workers represent failures in life in other directions, among whom chronic unemployment is common. While suicides of the unemployed in this country are not of unusual frequency, they are, nevertheless, reported from time to time suggestive of the possibility that more might be done to relieve the economic situation confronting those who find it difficult to adjust themselves to their environment. They are often not employed on account of economic conditions, but they are frequently unemployable in that they are utterly unfit for almost any kind of continuous work.

The foregoing are but brief observations of one of the most interesting phases of the suicide problem well deserving of more extended study and consideration.—*The Spectator,* March 15, 1928.

WHERE SUICIDE IS MOST AND LEAST COMMON.

Where Suicide is Most Common.

The question is often raised as to in what countries or localities suicides are most common. As I have often had occasion to point out in recent years, the suicide rate has been highest in certain cities of the Pacific Coast. It has always been uniformly high in Central Europe, but the outstanding country in this respect is Hungary, in the city of Budapest. The following record from 1906 to 1926 has been furnished me by the Municipal Statistical Bureau of Budapest and is reproduced as a matter of record.

Deaths from Suicide, Budapest, 1906-1926, Rate per 100,000.

	Per Cent to All Causes	Rate		Per Cent to All Causes	Rate		Per Cent to All Causes	Rate
1906	1.9	36.5	1913	2.7	50.1	1920	1.8	42.6
1907	2.0	40.4	1914	2.3	45.6	1921	2.0	41.1
1908	2.1	38.6	1915	1.8	39.7	1922	2.1	42.8
1909	2.3	43.8	1916	1.7	36.7	1923	2.2	43.8
1910	2.4	44.5	1917	1.1	27.0	1924	2.4	47.4
1911	2.1	40.2	1918	1.0	29.8	1925	3.4	55.2
1912	2.7	50.3	1919	1.7	37.2	1926	3.6	57.3

It may be said in this connection that the proportion of suicides to the mortality from all causes has increased from 1.9 per cent in 1906 to 3.6 per cent in 1926. As shown by the table, the rate during the same period has increased from 36.5 per 100,000 to 57.3. The population of Budapest in 1926 was about 964,000.

Where Suicide is Least Common.

The Irish Free State has about as low a general suicide rate as recorded for any civilized country of the world. I give below the deaths from suicide and the rates for the years 1915-1925.

Mortality from Suicide, Irish Free State, 1915-1925, Rate per 100,000.

	Deaths	Rate		Deaths	Rate
1915	81	2.6	1921	79	2.5
1916	68	2.2	1922	65	2.2
1917	53	1.7	1923	74	2.5
1918	65	2.1	1924	96	3.2
1919	83	2.7	1925	88	3.0
1920	61	2.0			

The estimated population of the Irish Free State in 1925 was 2,985,000. The suicide rate for Northern Ireland in 1925 was 6.0 per 100,000 of population, the estimated population being 1,257,000. Of the 88 suicides in the Irish Free State in 1925, 67 were males and 21 were females. No information is available as to methods for either the Irish Free State or the city of Budapest.

HOMICIDE AND SUICIDE STATISTICS OF SOME AMERICAN LIFE INSURANCE COMPANIES.

1915-1927.

Year	Number of Companies Reporting	Number of Policyholders	ALL CAUSES		HOMICIDE		SUICIDE	
			Deaths	Rate per 1000	Deaths	Rate per 100,000	Deaths	Rate per 100,000
1915	36	3,938,305	33,459	8.5	167	4.2	1070	27.2
1916	36	4,285,338	36,320	8.5	199	4.6	909	21.2
1917	36	4,726,513	37,813	8.0	189	4.0	875	18.5
1918	37	5,196,359	62,057	11.9	217	4.2	954	18.4
1919	39	6,081,882	53,973	8.9	288	4.7	1088	17.9
1915–1919		24,228,397	223,622	9.2	1060	4.4	4896	20.2
1920	43	7,334,968	53,222	7.3	325	4.4	1172	16.0
1921	43	7,822,757	50,288	6.4	490	6.3	1560	19.9
1922	44	8,591,865	56,730	6.6	436	5.1	1589	18.5
1923	45	9,488,558	62,666	6.6	428	4.5	1595	16.8
1924	45	10,240,625	65,575	6.4	445	4.3	1887	18.4
1920–1924		43,478,773	288,481	6.6	2124	4.9	7803	17.9
1925	45	11,057,022	70,739	6.4	495	4.5	1830	16.6
1926	45	11,853,074	77,447	6.5	480	4.0	2287	19.3
1927	44	12,163,962	78,610	6.5	482	4.0	2379	19.6
1925–1927		35,074,058	226,796	6.5	1457	4.2	6496	18.7
1915–1927		102,781,228	738,899	7.2	4641	4.5	19195	18.7